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PUBLIC HEALTH SERVICE

Hospital and Public Health Resources in New Jersey

A SOURCE BOOK

Part 1 of Report of New Jersey Survey of Hospital and Health Center Facilities under Federal Hospital Survey and Construction Act

STATE OF NEW JERSEY
DEPARTMENT OF INSTITUTIONS AND AGENCIES
TRENTON

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1947

10 JUL 1947

FOREWORD

Under the Federal Hospital Survey and Construction Act *(Public Law 725)* passed by Congress in the fall of 1946, the New Jersey State Department of Institutions and Agencies was designated by the Governor and the Legislature as the *"single state agency"* to administer the Federal program in New Jersey.

A prerequisite to the distribution of Federal funds in New Jersey is the development of a State plan to show the overall requirements for additional hospitals and public health center facilities throughout the State. This plan is now being evolved by the Department of Institutions and Agencies with the cooperation of the Hospital Advisory Council.

To date a great deal of basic statistical material has been gathered on the basis of a survey originally sponsored by the New Jersey State Commission on Post-War Economic Welfare which utilized the research facilities of the New Jersey State Department of Institutions and Agencies and the New Jersey State Department of Health. It is the purpose to present this material here as a SOURCE BOOK preliminary to the issuance of the State Plan.

Appreciation is expressed to the New Jersey Commission on Post-War Economic Welfare and the several hospital, health and medical organizations for their part in the preliminary survey; and to Emil Frankel, Director, and William H. MacDonald, Associate Director of the Survey for having taken on voluntarily this added responsibility.

Sanford Bates

Sanford Bates, *Commissioner*
New Jersey State Department of Institutions
and Agencies

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I. THE FEDERAL HOSPITAL SURVEY AND CONSTRUCTION PROGRAM IN BRIEF

The Federal Hospital Survey and Construction Act defines "adequate facilities" as follows:

1. Tuberculosis hospitals -- 2½ beds per average annual death from tuberculosis
2. Mental hospitals -- 5 beds per 1,000 population
3. Chronic disease hospitals -- 2 beds per 1,000 population
4. Public health centers -- 1 per 30,000 population
5. General hospitals -- 4½ beds per 1,000 population

Within the State, general hospitals are to be planned on an area basis, setting a pattern for a coordinated hospital system. The *base area,* with a large hospital -- if possible, associated with a medical school -- serves several *intermediate areas* having smaller general hospitals. Each of these in turn serves neighboring *rural areas* with more limited facilities. The ratio of beds to population is graded so that there are proportionately more beds in the larger medical centers where more complete service is available.

On the basis of these criteria for the consideration of "adequate facilities" the following facilities would be required for the State of New Jersey:

1. General hospitals — 18,720 beds
2. Tuberculosis sanatoria -- 4,640 beds
3. Mental hospitals -- 20,800 beds
4. Chronic disease hospitals -- 8,320 beds
5. Public health centers -- 135 health centers

II. SUMMARY OF HOSPITAL FACILITIES AND SERVICES IN NEW JERSEY

1946

Type of facility	Number of hospitals	Number of beds (a)	Average census	Admissions
1. General Hospitals	94	14,431	10,613	349,968
a. Voluntary, non-profit	78	11,546	8,760	308,159
b. Governmental	3	2,615 (b)	1,701	35,912
c. Proprietary	13	270	152	5,897
2. Allied Special Hospitals	43	2,195	1,024	23,998
a. Maternity	18	424	318	11,390
Governmental	1	345	272	10,380
Proprietary	17	79	46	1,010
b. Babies - voluntary, non-profit	1	70	33	1,925
c. Eye, Ear, Nose and Throat	6	87	41	3,338
Voluntary, non-profit	1	65	36	2,550
Proprietary	5	22	5	788
d. Orthopedic	5	347	201	1,525
Voluntary, non-profit	3	196	116	1,345
Charitable	2	151	85	180
e. Cardiac - charitable	2	170	92	340
f. Communicable Disease Hospitals	11	1,097	339	5,480
Governmental	10	1,064	329	5,159
County	3	585	214	3,702
Municipal	7	479	115	1,457
Voluntary, non-profit	1	33	10	321

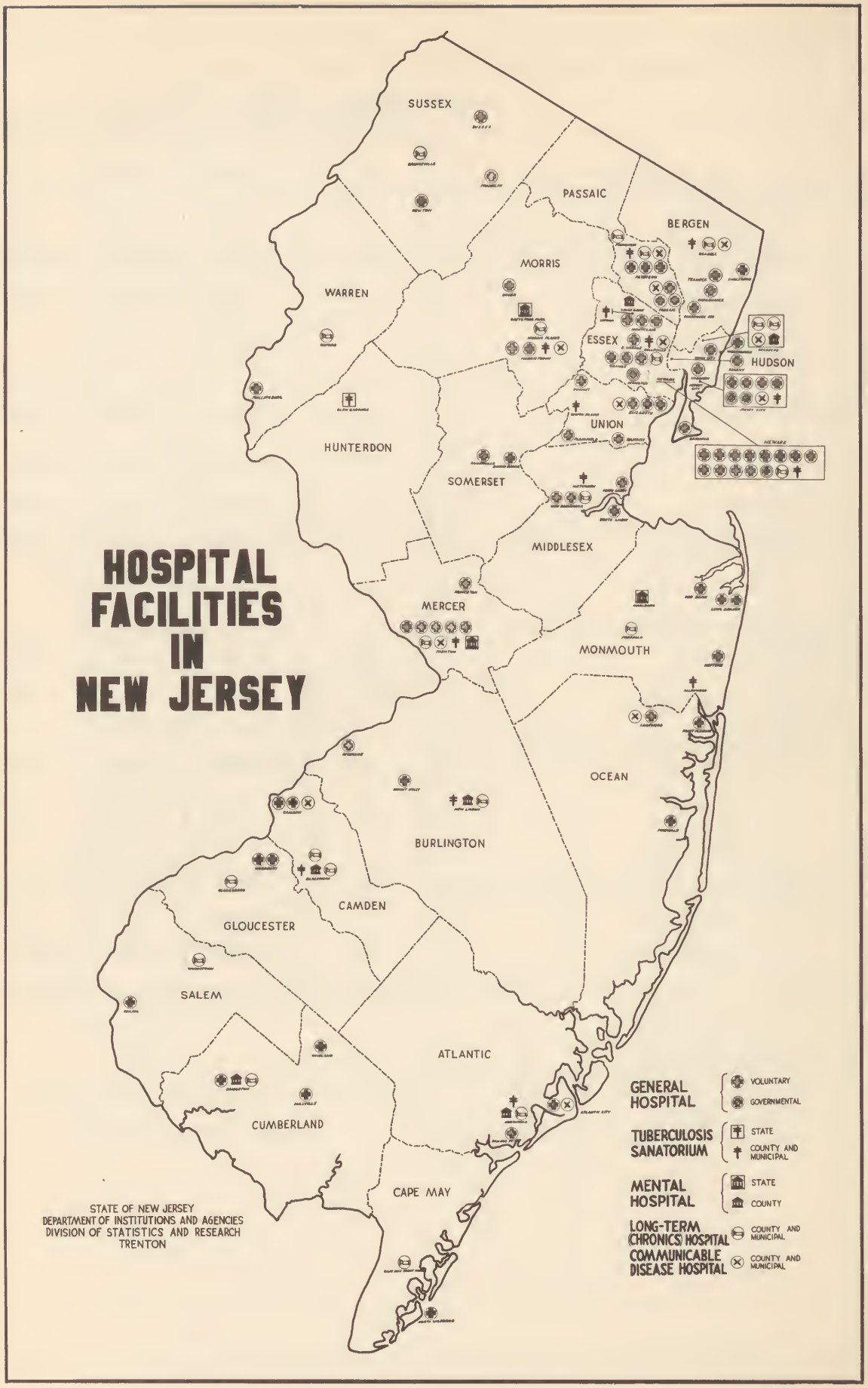
Type of facility	Number of hospitals	Number of beds (a)	Average census	Admissions
3. Tuberculosis Sanatoria	20	3,609 (c)	2,650	4,037
a. State	1	316	285	335
b. County and city	14	2,847	2,029	3,026
c. Charitable	2	346	257	615
d. Proprietary	3	100	79	61
4. Mental Hospitals	22	13,782	17,758	5,599
a. State	3	8,877 (d)	11,549	3,466
b. County	6	4,442 (d)	5,784	1,371
c. Proprietary	13	463	425	762
5. Facilities for Chronics and Convalescents	107	5,545	4,507	4,643
a. County hospitals	2	302	241	163
b. Welfare houses offering chronics care	19	3,248	2,659	1,393
County	15	2,428	1,981	901
Municipal	4	820	678	492
c. Nursing and convalescent homes	86	1,995	1,607	3,087
Charitable	6	398	218	541
Proprietary	80	1,597	1,389	2,546

(a) Not including bassinets

(b) Includes ultimate bed capacity of Jersey City Medical Center

(c) Not included in the above are approximately 1,050 beds set aside for tuberculous patients in mental hospitals

(d) Figures represent rated normal bed capacity


HOSPITAL FACILITIES IN NEW JERSEY
SUSSEX
PASSAIC
BERGEN
MORRIS
WARREN
ESSEX
HUDSON
UNION
HUNTERDON
SOMERSET
MIDDLESEX
MERCER
MONMOUTH
OCEAN
BURLINGTON
CAMDEN
GLOUCESTER
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY
GENERAL HOSPITAL
VOLUNTARY
GOVERNMENTAL
TUBERCULOSIS SANATORIUM
STATE
COUNTY AND MUNICIPAL
MENTAL HOSPITAL
STATE
COUNTY
LONG-TERM CHRONICS HOSPITAL
COUNTY AND MUNICIPAL
COMMUNICABLE DISEASE HOSPITAL
COUNTY AND MUNICIPAL
STATE OF NEW JERSEY
DEPARTMENT OF INSTITUTIONS AND AGENCIES
DIVISION OF STATISTICS AND RESEARCH
TRENTON

III. GENERAL HOSPITALS

BEDS BY COUNTIES AND COMMUNITIES

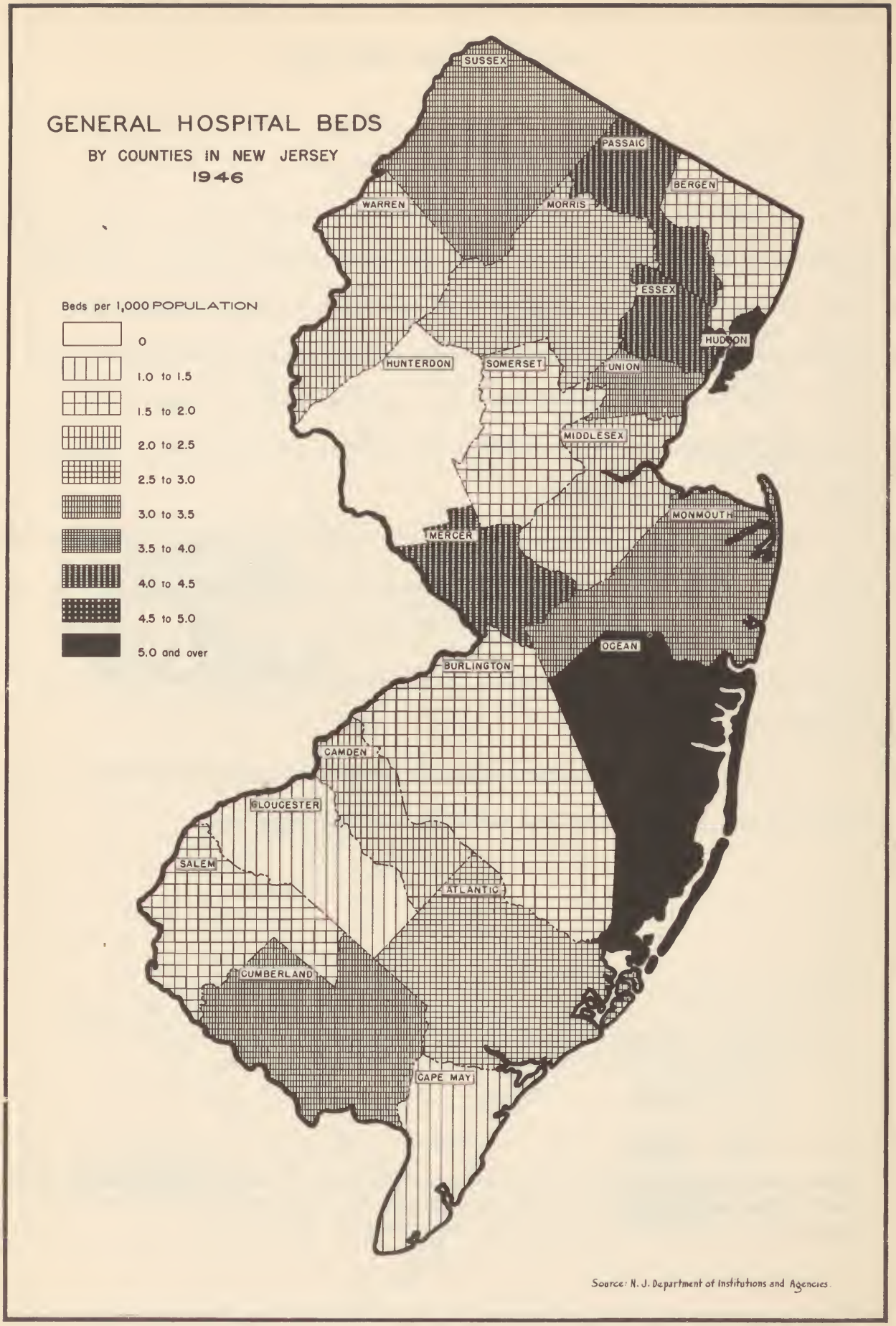
In 1946 there was available a capacity of 14,837 beds for adults and children in New Jersey's 87 voluntary and governmental general hospitals*, which is equivalent to a ratio of 3.57 available beds per 1,000 general population. This prevailing ratio might be set against the general ratio of 4.5 beds per 1,000 general population as the maximum ratio for which matching funds may be obtained under the Federal Hospital Survey and Construction Act (Public Law 725).

Supplementing this general bed ratio standard of 4.5 per 1,000 general population the following U.S. Public Health Service bed ratio standards obtain for different population areas: 2.5 beds per thousand population in rural areas, 4.0 beds per thousand in intermediate areas, and 4.5 beds per thousand in base areas.

The hospital bed population ratios obtaining in the different counties of New Jersey are shown in the table on the following page:

* Included in these figures are the following allied special hospitals: Five voluntary non-profit hospitals (1 babies hospital with 70 beds, 1 eye, ear, nose and throat hospital with 65 beds and 3 orthopedic hospitals with 196 beds) and 1 governmental maternity hospital with 345 beds.

Chapter developed by Division of Statistics and Research of the New Jersey Department of Institutions and Agencies (with the aid of Ina M. Lee, Gertrude L. Hutchins and John J. Gandner) and the cooperation of the New Jersey Hospital Association.


GENERAL HOSPITAL BEDS
BY COUNTIES IN NEW JERSEY
1946
Beds per 1,000 POPULATION
0
1.0 to 1.5
1.5 to 2.0
2.0 to 2.5
2.5 to 3.0
3.0 to 3.5
3.5 to 4.0
4.0 to 4.5
4.5 to 5.0
5.0 and over
SUSSEX
PASSAIC
BERGEN
WARREN
MORRIS
ESSEX
HUDSON
HUNTERDON
SOMERSET
UNION
MIDDLESEX
MONMOUTH
MERCER
OCEAN
BURLINGTON
CAMDEN
GLOUCESTER
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY
Source: N. J. Department of Institutions and Agencies.

GENERAL HOSPITAL BEDS IN NEW JERSEY

(Voluntary and Governmental)

BY COUNTIES

1946

County	General population 1940	Number of beds (a)	Bed ratio per 1,000 general population
All counties	4,160,165	14,837	3.57
Atlantic	124,066	325	2.62
Bergen	409,646	658	1.61
Burlington	97,013	159	1.64
Camden	255,727	617	2.41
Cape May	28,919	30	1.04
Cumberland	73,184	231	3.16
Essex	837,340	3,752	4.48
Gloucester	72,219	85	1.18
Hudson	652,040	3,634(b)	5.57
Hunterdon	36,766	0	0
Mercer	197,318	863	4.37
Middlesex	217,077	510	2.35
Monmouth	161,238	536	3.32
Morris	125,732	345	2.74
Ocean	37,706	198	5.25
Passaic	309,353	1,382	4.47
Salem	42,274	70	1.66
Somerset	74,390	140	1.88
Sussex	29,632	102	3.44
Union	328,344	1,085	3.30
Warren	50,181	115	2.29

Source: N. J. Dept. Institutions & Agencies

(a) Adult and children beds, excluding bassinets.

(b) Includes ultimate bed capacity of Jersey City Medical Center (1800). Service figures throughout the report, however, are based upon the present bed complement of 1450.

Among the 87 general hospitals 83 are voluntary, non-profit hospitals, one is county-owned *(Margaret Hague Maternity, Hudson County)* and three are city owned *(Newark, Jersey City and Irvington Hospitals)*.

While a considerable proportion of the 87 general hospitals are comparatively small in size *(43.7 per cent are less than 100 beds)* the bulk of the beds as well as the services rendered are in the hospitals of 100 beds and over: 85.4 per cent of the total beds, 84.2 per cent of the total admissions and 87 per cent of all the patient days rendered.

SUMMARY OF GENERAL HOSPITAL FACILITIES AND SERVICES IN NEW JERSEY
BY SIZE OF HOSPITAL

Adults, Children and Mothers - Excluding New-Born

1946

Number of beds	NUMBER			
	Hospitals	Beds	In-patient admissions	In-patient days
All hospitals	87	14,487	360,271	3,974,624
Under 50 beds	16	548	13,617	145,979
50 - 99 beds	22	1,569	43,323	370,824
100 - 249 beds	31	5,062	134,942	1,371,822
250 - 499 beds	16	5,158	135,893	1,492,315
500 and over	2	2,150	32,496	593,684

Number of beds	PER CENT			
	Hospitals	Beds	In-patient admissions	In-patient days
All hospitals	100.0%	100.0%	100.0%	100.0%
Under 50 beds	18.4	3.8	3.8	3.7
50 - 99 beds	25.3	10.8	12.0	9.3
100 - 249 beds	35.6	35.0	37.5	34.5
250 - 499 beds	18.4	35.6	37.7	37.6
500 and over	2.3	14.8	9.0	14.9

Source: N. J. Dept. Institutions and Agencies

GENERAL HOSPITAL BEDS AND BASSINETS IN NEW JERSEY COMMUNITIES

1946

Location	Number of hospitals	Bed complement	
		Excluding bassinets	Bassinets
STATE	87	14,487	2,890
Atlantic County	2	325	54
Atlantic City	1	260	40
Somers Point	1	65	14
Bergen County	4	658	142
Englewood	1	196	42
Hackensack	1	250	50
Hasbrouck Hts.	1	27	0
Teaneck	1	185	50
Burlington County	2	159	42
Mt. Holly	1	118	27
Riverside	1	41	15
Camden County	2	617	164
Camden	2	617	164
Cape May County	1	30	5
North Wildwood	1	30	5
Cumberland County	3	231	55
Bridgeton	1	94	21
Millville	1	52	14
Vineland	1	85	20
Essex County	21	3,752	643
East Orange	1	120	30
Irvington	1	115	20
Montclair	3	415	91
Newark	13	2,555	392
Orange	3	547	110
Gloucester County	2	85	41
Woodbury	2	85	41
Hudson County	11	3,284	570
Bayonne	1	220	30
Hoboken	1	421	29
Jersey City	6	2,383	456
Kearny	1	64	20
Union City	1	30	10
Weehawken	1	166	25
Mercer County	6	863	157
Princeton	1	85	17
Trenton	5	778	140
Middlesex County	4	510	133
New Brunswick	2	294	73
Perth Amboy	1	181	44
South Amboy	1	35	16
Monmouth County	4	536	126
Long Branch	2	346	72
Neptune	1	152	39
Red Bank	1	38	15
Morris County	3	345	77
Dover	1	114	21
Morristown	2	231	56
Ocean County	3	198	33
Lakewood	1	65	11
Point Pleasant	1	48	10
Pinewald	1	85	12
Passaic County	6	1,382	328
Passaic	3	504	137
Paterson	3	878	191
Salem County	1	70	20
Salem	1	70	20
Somerset County	2	140	35
Somerville	1	110	25
Bound Brook	1	30	10
Sussex County	3	102	24
Franklin	1	35	7
Newton	1	42	9
Sussex	1	25	8
Union County	6	1,085	206
Elizabeth	3	581	84
Plainfield	1	270	60
Rahway	1	80	20
Summit	1	154	42
Warren County	1	115	35
Phillipsburg	1	115	35

Source: N. J. Dept. Institutions & Agencies

COUNTY FACILITIES AND IN-PATIENT ADMISSIONS

Of the total of 360,271 admissions which occurred in the 87 voluntary and governmental general hospitals in New Jersey in 1946, 73.4 per cent occurred in the hospitals of six counties: Essex 25.5 per cent; Hudson 17.5 per cent; Passaic 10.4 per cent; Union 7.6 per cent; Mercer 6.5 per cent; and Bergen 5.9 per cent.

GENERAL HOSPITAL ADMISSIONS IN NEW JERSEY
BY COUNTIES

Adults, Children and Mothers - Excluding New-Born

1946

Counties	Number of hospitals	Number of beds	Number of in-patient admissions
All counties	87	14,487	360,271
Atlantic	2	325	8,774
Bergen	4	658	21,435
Burlington	2	159	3,566
Camden	2	617	15,990
Cape May	1	30	490
Cumberland	3	231	5,673
Essex	21	3,752	91,829
Gloucester	2	85	2,759
Hudson	11	3,284	62,936
Hunterdon	0	0	0
Mercer	6	863	23,419
Middlesex	4	510	16,261
Monmouth	4	536	16,396
Morris	3	345	9,299
Ocean	3	198	3,259
Passaic	6	1,382	37,603
Salem	1	70	1,418
Somerset	2	140	5,608
Sussex	3	102	3,363
Union	6	1,085	27,506
Warren	1	115	2,687

Source: N. J. Dept. Institutions and Agencies

IN-PATIENT SERVICES

During the last decade or so New Jersey general hospitals have seen a continuous upward swing in the utilization of their services. The admission of in-patients *(exclusive of maternity cases)* which numbered 188,070 in 1930 have increased to 232,575 in 1940 and jumped to 278,645 in 1946. There has been a corresponding increase in the patient days rendered, of course, although the average length of stay has been perceptibly shortened.

Accounting for this shortened hospital stay are both the results of the advances made by medical science which have accelerated recovery and shortened the convalescence period of the individual patient, as well as the necessity of making beds available for patients so that a relatively larger number may be cared for with the reduced medical and nursing personnel.

IN-PATIENT SERVICES IN GENERAL HOSPITALS IN NEW JERSEY

Adults and Children Only - Excluding Maternity Services (Mothers & New-Born)

1930 - 1946

Year	Admissions	Patient days	Average days' stay
1930	188,070	2,432,990	12.9
1931	193,375	2,568,275	13.3
1932	185,685	2,520,980	13.6
1933	181,500	2,483,405	13.7
1934	189,900	2,613,025	13.8
1935	193,255	2,599,740	13.5
1936	197,675	2,626,045	13.3
1937	216,820	2,761,070	12.7
1938	216,290	2,762,025	12.8
1939	226,725	2,802,330	12.4
1940	232,575	2,954,465	12.7
1941	239,060	2,984,395	12.5
1942	235,735	2,845,760	12.1
1943	231,250	2,796,895	12.1
1944	242,560	2,924,095	12.1
1945	259,200	3,191,635	12.3
1946	278,645	3,248,640	11.7

Source: N. J. Dept. Institutions & Agencies

AVERAGE LENGTH OF HOSPITAL STAY

It is to be noted that in the figure which expresses the "average length of stay" of all patients are included average stays of varying lengths dependent upon the different types of patients and of services received viz., patients include adults, children and obstetrics, and within each of these are medical, surgical, eye, ear, nose and throat, and other specialized services.

AVERAGE LENGTH OF STAY (DAYS) BY TYPE OF SERVICE RENDERED

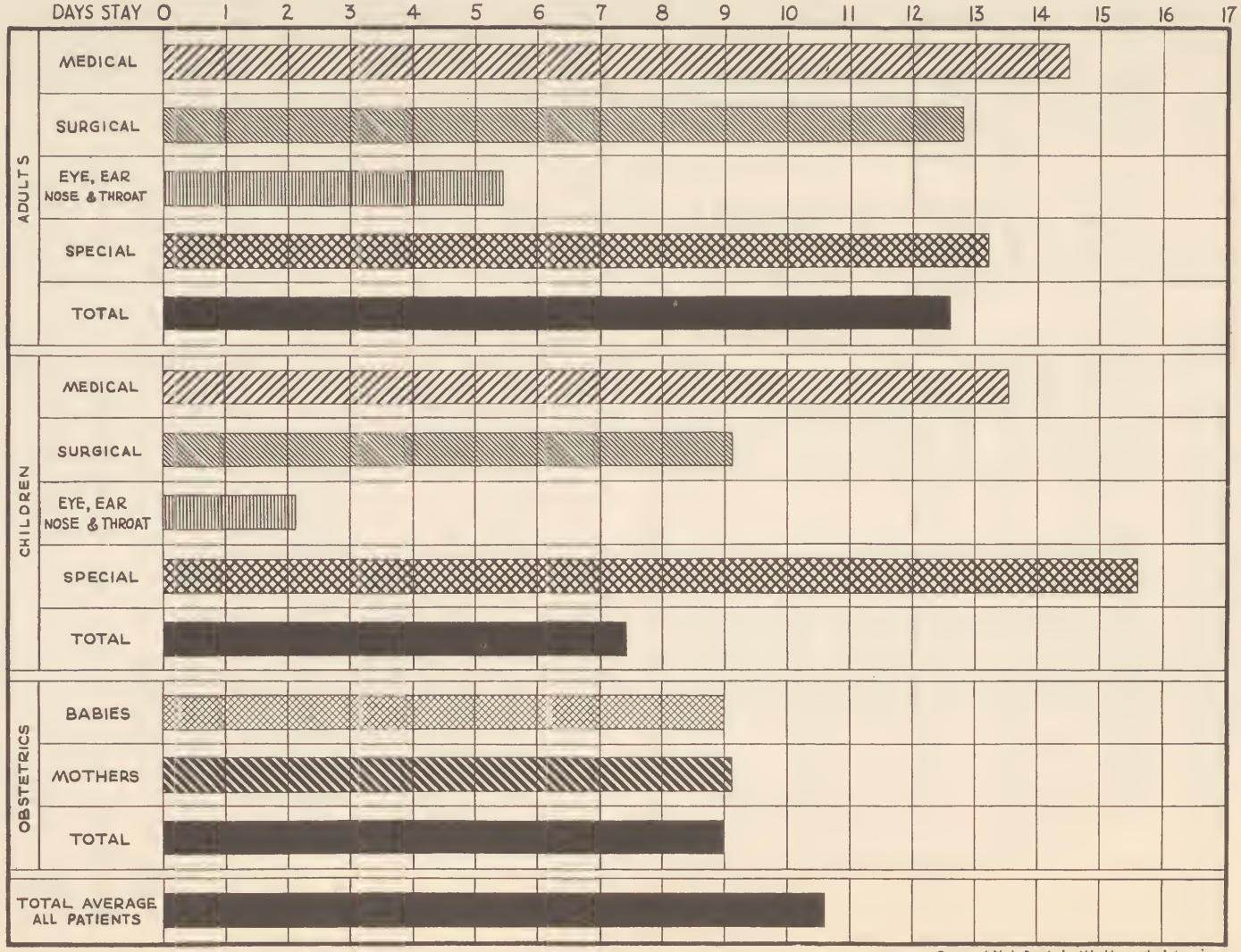
(26 Voluntary General Hospitals)

1945

Type of service	Average length of stay (days)
Total	10.6
Adults - total	12.7
Medical	14.5
Surgical	12.8
Eye, Ear, Nose and Throat	5.4
Special	13.2
Children - total	7.4
Medical	13.5
Surgical	9.1
Eye, Ear, Nose and Throat	2.1
Special	15.6
Obstetrics - total	9.0
Mothers	9.1
Babies	9.0

Source: N. J. Dept. Institutions & Agencies

AVERAGE LENGTH OF HOSPITAL STAY
PATIENTS IN VOLUNTARY GENERAL HOSPITALS
BY TYPE OF SERVICE RENDERED
1945



Source: N.J. Dept. Institutions + Agencies

MATERNITY FACILITIES AND SERVICES

Seventy-eight of the 87 general hospitals have maternity services and have available a total of 2,890 bassinets.

MATERNITY FACILITIES AND SERVICES IN GENERAL HOSPITALS IN NEW JERSEY
By Classified Number of Bassinets
1946

Number of bassinets	NUMBER		
	Hospitals	Mothers' admissions	Mothers' patient days
All hospitals	78	81,630	725,990
Under 25 bassinets	33	12,055	106,930
25 - 49 bassinets	29	30,980	265,510
50 - 74 bassinets	10	18,530	162,820
Over 75 bassinets	6	20,065	190,730

Number of bassinets	PER CENT		
	Hospitals	Mothers' admissions	Mothers' patient days
All hospitals	100.0%	100.0%	100.0%
Under 25 bassinets	42.3	14.8	14.7
25 - 49 bassinets	37.2	37.9	36.6
50 - 74 bassinets	12.8	22.7	22.4
Over 75 bassinets	7.7	24.6	26.3

Source: N. J. Dept. Institutions & Agencies

The continuously increasing use of the general hospital for maternity cases is strikingly illustrated in the following table. The effects of the war upon the acceleration in marriages and enormously increased birth rate are reflected in the great augmentation of maternity admissions in the years 1941 to 1943. The peak in maternity admissions was reached in 1946 with such admissions numbering 81,630.

MATERNITY PATIENTS IN GENERAL HOSPITALS IN NEW JERSEY

1930 - 1946

Year	Number of admissions (mothers only)	Patient days (mothers only)
1930	30,740	307,390
1931	31,100	311,020
1932	33 605	336,070
1933	34,985	349,840
1934	34,195	341,960
1935	34,750	347,500
1936	36,785	367,840
1937	38,955	389,550
1938	42,875	428,760
1939	44,350	443,510
1940	48,155	481,570
1941	56,120	561,200
1942	69,325	693,230
1943	70,115	701,150
1944	65,515	655,130
1945	67,095	647,915
1946	81,630	725,990

Source: N. J. Dept. Institutions & Agencies

BIRTHS IN HOSPITALS

In 1941 more than 90 per cent of all live births which took place that year occurred in hospitals. The lowest ratio was 77.5 per cent in Sussex County while the highest ratio - 97.5 per cent - was to be noted in Bergen County.

LIVE BIRTHS BY PERSON IN ATTENDANCE IN NEW JERSEY
By County of Residence of Mother
1944

County	Total births	PER CENT OF THESE BIRTHS ATTENDED BY			
		Physician (In hospital)	Physician (Not in hospital)	Midwife	Other and not specified
State	76,265	92.5%	6.2%	1.3%	*
Essex	15,175	95.8	3.4	0.8	*
Hudson	10,740	96.3	2.8	0.9	*
Bergen	7,620	97.5	1.7	0.8	*
Union	6,496	93.5	3.6	2.8	0.1%
Passaic	5,143	95.3	3.4	1.1	0.2
Camden	5,060	85.4	12.7	1.9	*
Middlesex	4,024	86.9	7.4	5.7	*
Mercer	3,575	94.2	5.5	0.3	-
Monmouth	3,483	93.8	6.1	0.1	*
Morris	2,326	91.9	7.7	0.4	-
Atlantic	1,988	85.3	13.6	1.1	-
Burlington	1,902	81.5	18.1	0.4	*
Gloucester	1,506	83.6	16.2	0.1	0.1
Somerset	1,500	91.2	5.1	3.7	-
Cumberland	1,494	81.4	18.6	-	-
Salem	950	85.5	14.4	*	0.1
Warren	810	84.2	15.8	-	-
Ocean	757	89.3	10.6	*	0.1
Sussex	601	77.5	22.0	0.3	0.2
Cape May	564	86.5	13.5	*	-
Hunterdon	551	81.3	18.1	0.4	0.2

Source: U. S. Census Bureau

*Less than 1/10 of 1 per cent

The increasing use of the hospital for deliveries is graphically illustrated in the following table, which also shows a striking increase in the use of the hospital for delivery by the rural population.

BIRTHS OCCURRING IN HOSPITALS IN NEW JERSEY

Year	Per cent of total births occurring in hospitals of		
	Total population	Urban population	Rural population
1937	74.1%	82.3%	37.3%
1938	77.7	85.2	42.0
1942	90.2	92.0	82.2
1944	92.5	93.8	87.0

Source: U. S. Census Bureau

EMERGENCY MATERNITY AND INFANT CARE PROGRAM

During the war period a most significant development has been the Emergency Maternity and Infant Care program which was put into effect in April, 1943 to give assistance from Federal funds to the families of enlisted men in the armed services. The plan provided for the complete cost of physicians' and hospitals' maternity services and for the treatment for illness of infants up to one year of age, both according to fixed scales of charges.

The program in New Jersey was administered by the Bureau of Maternal and Child Health of the State Health Department and the numbers of mothers and babies involved are summarized in the following table. The plan was still in effect (June, 1947) but is operating at a greatly reduced rate.

After each birth occurred the family was referred to the Public Health Nursing organization in the community of residence and a large amount of follow-up service was thus rendered of which there is no statewide record.

OPERATIONS OF E.M.I.C. PROGRAM IN NEW JERSEY

Period	Mothers	Infants	Total Cost
May 1 - June 30, 1943	5,335	190	$1,181.95
July 1, 1943 - June 30, 1944	10,568	1,302	458,800.21
July 1, 1944 - June 30, 1945	9,112	1,517	1,138,995.10
July 1, 1945 - June 30, 1946	5,222	1,096	1,114,371.63
July 1, 1946 - Mar. 30, 1947	395	252	582,175.74
Total	30,632	4,357	$3,295,524.63

Source: N. J. Dept. Health

SUMMARY OF HOSPITAL IN-PATIENT ADMISSIONS

A summary of the relative proportion in the hospital admissions of the general patients and of the maternity patients is offered in the following table:

HOSPITAL ADMISSIONS BY GENERAL AND MATERNITY SERVICE
1930 - 1946

Year	Per cent of total admissions	
	General patients	Maternity patients
1930	86.0%	14.0%
1935	84.8	15.2
1940	82.8	17.2
1941	81.0	19.0
1942	77.3	22.7
1943	76.7	23.3
1944	78.7	21.3
1945	79.4	20.6
1946	77.3	22.7

Source: N. J. Dept. Institutions & Agencies

OCCUPANCY RATES

The occupancy rates in the general hospitals in New Jersey in recent years have been quite high and have been at a point beyond which they should not go in order to insure adequate care to the individual patient.

Administrative experience in general hospitals has demonstrated that efficient and adequate provision for community requirements cannot be carried on with an average annual bed occupancy of more than 75 per cent to 80 per cent. This is in large part due to the fact that the general hospital must provide segregated departments for various age and therapeutic classifications, i.e., separate wards for men and women, for surgical, medical, obstetric and pediatric cases and for isolation of communicable and infectious conditions, and patients in disturbed or critical condition.

There is also the obvious necessity of providing for the peak loads which occur at unpredictable periods during the year. The vast difference in minimum load and peak load is aggravated by the previously mentioned

segregation requirements. For example, a general hospital may, even at a time when its total occupancy is considerably below its total capacity, be very much over-crowded in certain of its departments with patients who cannot properly be cared for in other locations.

OCCUPANCY RATES OF GENERAL HOSPITALS IN NEW JERSEY

1929 - 1946

Year	Total	General (Excluding mothers and new born)	Maternity (Excluding new born)
1929	68.6%	73.4%	41.4%
1930	67.3	70.4	49.9
1931	68.3	74.3	40.9
1932	66.2	71.7	41.9
1933	64.9	69.5	44.3
1934	67.3	72.8	42.6
1935	67.7	72.7	44.6
1936	68.3	72.8	47.3
1937	72.0	76.6	50.3
1938	70.4	73.9	53.7
1939	70.1	73.3	54.9
1940	72.7	76.0	57.5
1941	73.8	76.6	61.6
1942	72.0	72.0	71.9
1943	70.4	70.5	69.9
1944	69.5	69.7	63.7
1945	73.4	76.3	61.9
1946	75.5	77.1	68.8

Source: N. J. Dept. Institutions & Agencies

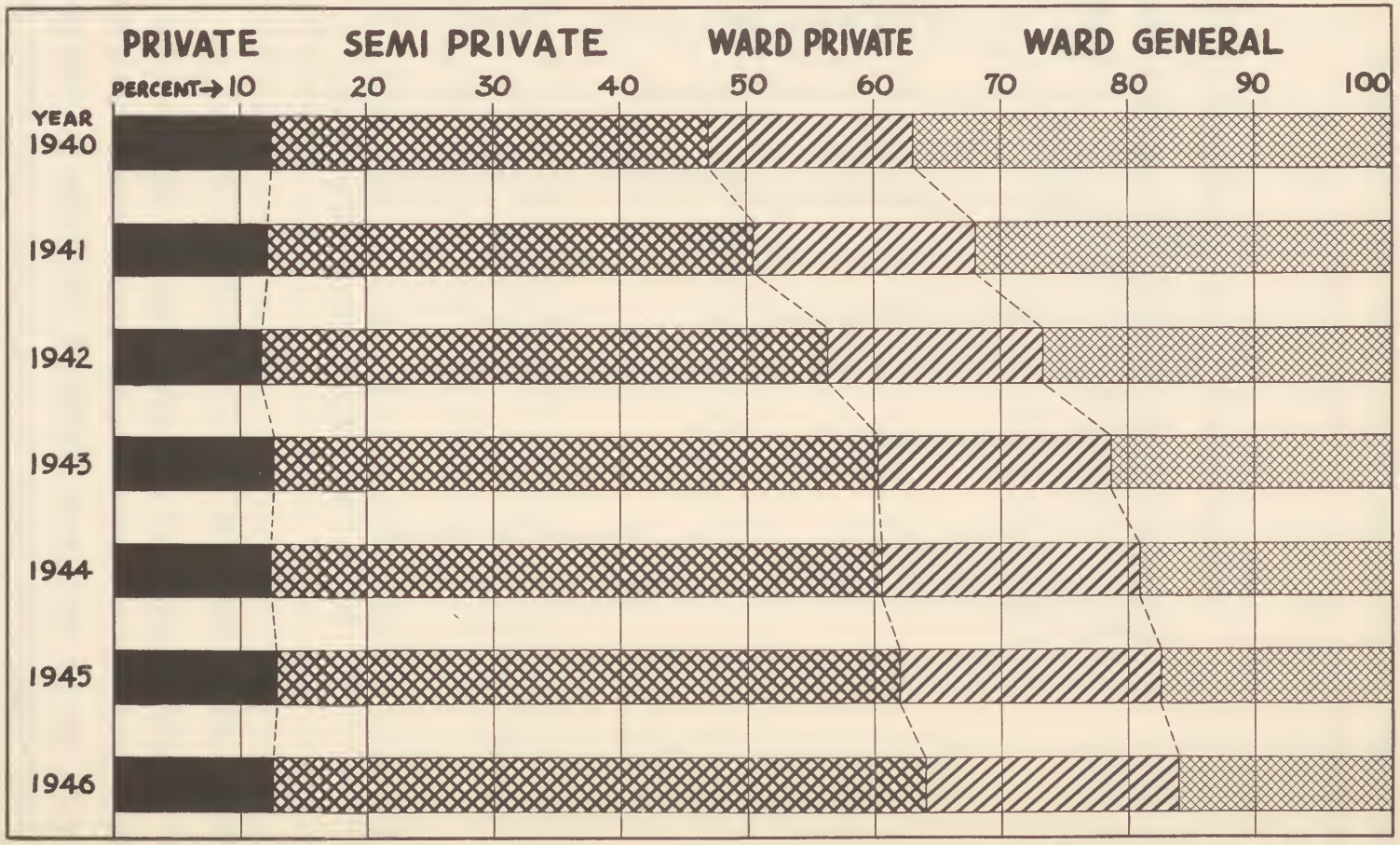
TREND IN USE OF DIFFERENT HOSPITAL ACCOMMODATIONS

The very favorable economic situation engendered by the war period which expressed itself in correspondingly higher incomes for the great mass of the people, and the increasing number of Blue Cross subscribers is reflected in the growing proportion of patients able to avail themselves of the higher-priced general hospital accommodations.

TREND IN IN-PATIENT SERVICES IN VOLUNTARY GENERAL HOSPITALS

BY TYPE OF ACCOMMODATION (EXCLUDING NEWBORN)

1940 – 1946



Source: N.J. Dept. Institutions & Agencies

In 1940, 34.3 per cent of the admissions were to semi-private rooms as against 51.3 per cent in 1946. Likewise ward-private patient admissions increased from 16 per cent in 1940 to 19.9 per cent in 1946. The notable fact is the decrease in ward-general admissions *(37.2 per cent in 1940 to 16.3 per cent in 1946)* the bulk of whom constitute the so-called "charity" patients who are largely the responsibility of the public welfare bodies.

TREND IN IN-PATIENT ADMISSIONS IN VOLUNTARY GENERAL HOSPITALS IN NEW JERSEY

By Type of Accommodation

1940 - 1946

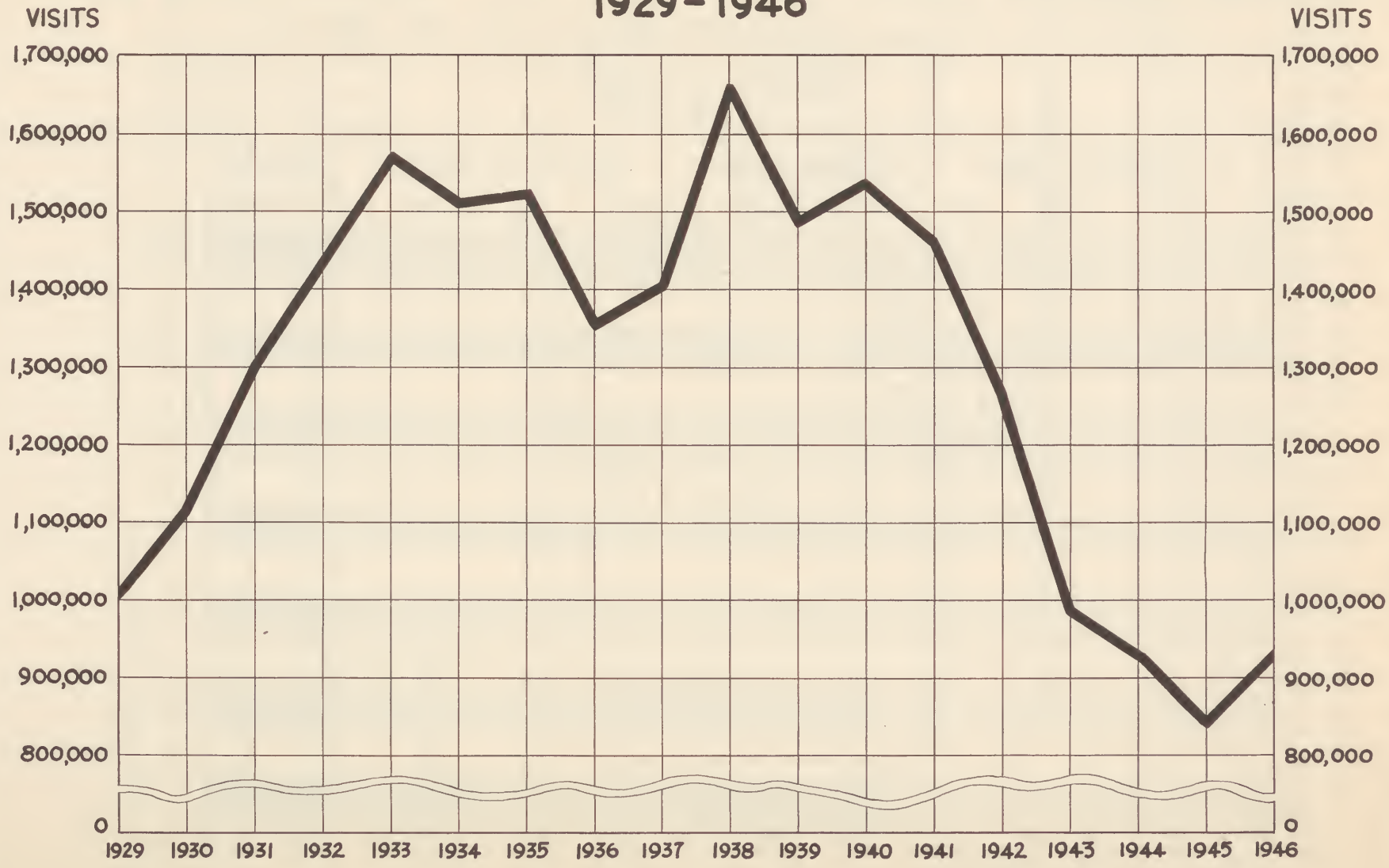
Year	Type of Accommodation - Per cent			
	Private	Semi-private	Ward	
			Private	General
1940	12.5%	34.3%	16.0%	37.2%
1941	12.1	38.5	17.5	31.9
1942	11.7	44.5	17.0	26.8
1943	12.7	47.3	18.8	21.2
1944	12.4	47.8	20.3	19.5
1945	12.7	49.3	20.4	17.6
1946	12.5	51.3	19.9	16.3

Source: N. J. Dept. of Institutions & Agencies

OUT-PATIENT VISITS

It has long been the practice for the New Jersey general hospitals to utilize the out-patient clinics as an effective device to meet the needs of the sick poor who are able to come to some fixed point. Through the cooperation and generosity of the medical professions the clinics have been able to bring together well-equipped specialists representing the different branches of medicine utilizing to the fullest the available diagnostic and therapeutic facilities.

OUT-PATIENT VISITS TO GENERAL HOSPITALS IN NEW JERSEY
(VOLUNTARY AND GOVERNMENTAL)
1929 - 1946



Source : N.J. Dept. Institutions + Agencies

OUT-PATIENT VISITS IN GENERAL HOSPITALS
IN NEW JERSEY, 1930 - 1946

Year	Number of out-patient visits
1930	1,114,121
1931	1,304,079
1932	1,441,830
1933	1,572,425
1934	1,509,921
1935	1,520,208
1936	1,353,525
1937	1,404,297
1938	1,659,607
1939	1,486,636
1940	1,536,121
1941	1,460,633
1942	1,261,113
1943	981,587
1944	926,669
1945	837,417
1946	925,873

Source: N. J. Dept. Institutions & Agencies

There is to be noted a sharp increase in out-patient visits to general hospitals beginning with the depression in 1929. As the employment situation improved there is a noticeable drop in out-patient visits, which shoot up again with the onset of the "secondary" depression in 1936.

From 1940 to 1945 there is a continuous drop in out-patient visits reflecting, no doubt, the improved economic situation of the average wage-earner and his desire to seek medical advice through the private practitioner and pay for such services.

In the one year period 1945-1946, which marks the ending of World War II and a complete alteration in the employment situation, the number of out-patient visits to general hospitals is again on the increase.

HOSPITAL EXPENDITURES AND COSTS

The current operating expenditures of the 87 general hospitals amounted to more than forty million dollars in 1946, with receipts from patients estimated at thirty million dollars, thus presenting an operating deficit of some ten million dollars.

The sharp increase in the cost of living in the last few years is reflected in an increase of the current operating expenditures of $2,932,895 between 1943 and 1944; $3,732,640 between 1944 and 1945; and $7,277,830 between 1945 and 1946.

TOTAL GENERAL HOSPITAL EXPENSES IN NEW JERSEY

1930 - 1946

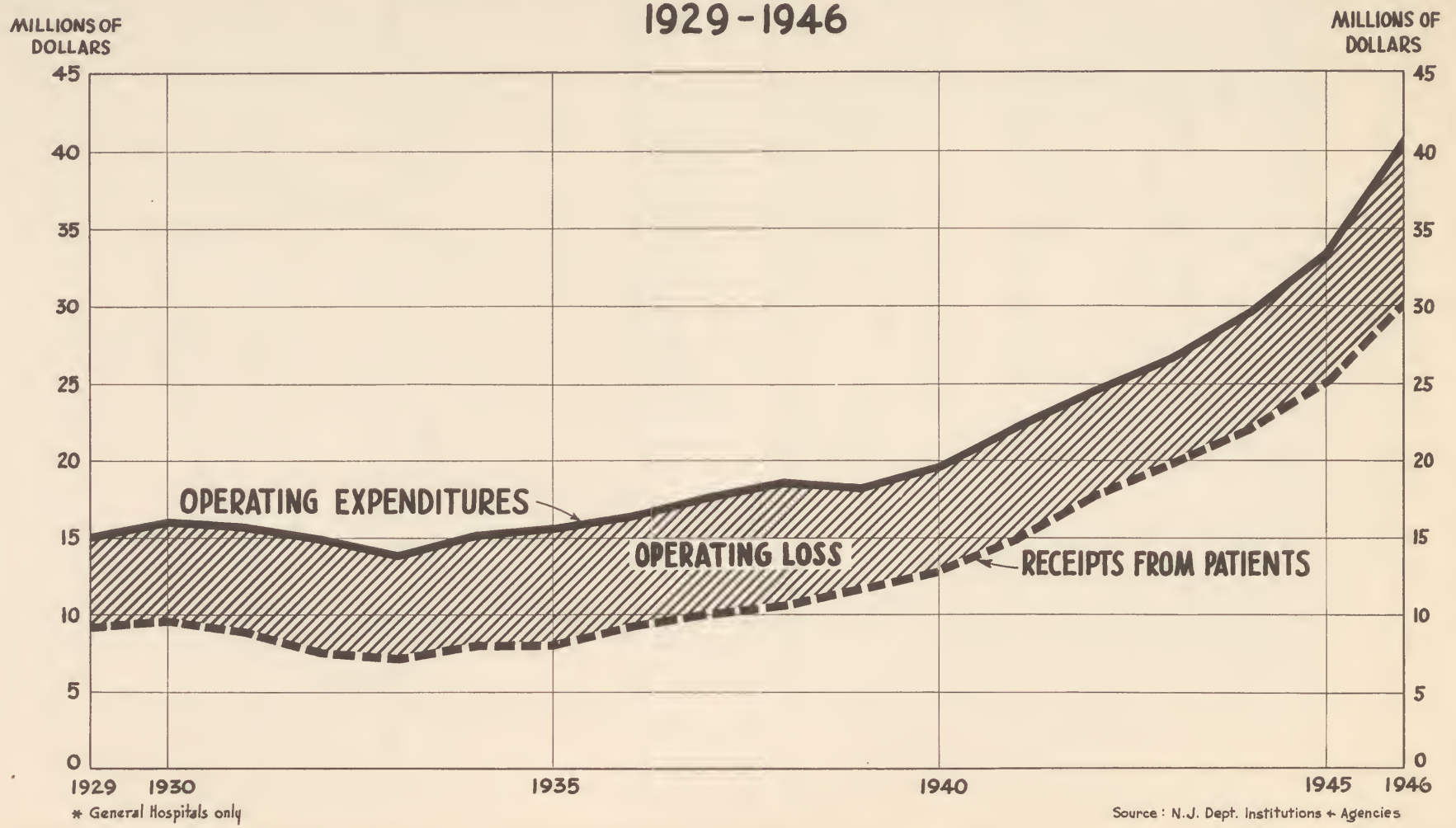
Year	Total annual expenditure
1930	$15,909,370
1931	15,664,450
1932	14,784,135
1933	13,687,260
1934	15,001,095
1935	15,386,435
1936	16,169,900
1937	17,453,045
1938	18,459,685
1939	18,151,610
1940	19,627,195
1941	22,135,625
1942	24,419,910
1943	26,622,910
1944	29,555,805
1945	33,288,445
1946	40,566,275

Source: N. J. Dept. Institutions & Agencies

Regarding the problem of meeting the mounting hospital deficits and the problem of securing adequate reimbursement by the hospitals for the care of the indigent patient, the following comments quoted from a study* made recently

* "Hospital Care of the Indigent and Medically Indigent in New Jersey" A Review of the Policies and Legal Resources for Adequate Hospital Care.

ESTIMATED ANNUAL HOSPITAL RECEIPTS AND EXPENDITURES
(VOLUNTARY AND GOVERNMENTAL HOSPITALS)*
1929-1946



* General Hospitals only

Source: N.J. Dept. Institutions + Agencies

by the New Jersey Hospital Association and the New Jersey Department of Institutions and Agencies, will be of interest:

"Even before the depression there was a strong feeling that government, particularly local government, held the basic responsibility for financing the care of the indigent sick in hospitals. While subscribing to this point of view as a principle, however, most hospitals found it satisfactory in practice to combine revenues received from contributions, endowments and from service to patients able to pay full hospital charges, with occasional governmental subventions in financing charitable services. This remains true today, although the proportion of total income from the several sources has changed.

"With the depression, however, the trend toward governmental support of the indigent sick was considerably accelerated. The number of patients unable to meet the cost of hospital care greatly increased, the revenues available from endowment diminished sharply because of the deterioration of investments and the reduction of interest rates. Philanthropic giving decreased. Only through governmental payments could the hospitals continue to furnish the service upon which communities had come increasingly to depend as a central feature of the total health and welfare program."

AVERAGE DAILY PER CAPITA COST

The average daily per capita cost of patients in voluntary general hospitals has doubled between 1940 and 1947. It has been remarked by hospital administrators that in spite of these mounting per capita costs the total cost of a hospital stay has not materially increased to the individual paying patient in recent years as there has been a reduction in the average stay of the patient in the hospital.

AVERAGE DAILY PER CAPITA COST

Voluntary General Hospitals in New Jersey

1940 - 1947

Year	Based on adult hospital days only	Based on adult hospital days, plus 1/4 infant days
1940	$5.95	$5.73
1941	6.31	6.04
1942	6.91	6.57
1943	7.64	7.26
1944	8.54	8.15
1945	9.13	8.71
1946	10.49	9.99
1946		
First quarter	$9.62	$9.22
Second quarter	9.80	9.36
Third quarter	10.85	10.27
Fourth quarter	11.71	11.09
1947		
First quarter	$11.79	$11.21

Source: N. J. Dept. Institutions & Agencies

ANNUAL HOSPITALIZATION EXPENSE OF THE GENERAL POPULATION

Taking the total general hospital expenditures which were estimated at $40,566,275 in 1946, the calculation may be made that the average expenditure for general hospital purposes amounted to $9.75 per New Jersey inhabitant that year. These figures could be used to gauge the extent to which the people of given counties may be able to support and maintain local hospital facilities.

ANNUAL HOSPITALIZATION EXPENSES IN GENERAL HOSPITALS
OF THE NEW JERSEY POPULATION

By Counties

1946

County	Estimated annual hospital expense for total county population
All counties	$40,566,275
Essex	8,165,005
Hudson	6,358,120
Bergen	3,994,510
Union	3,201,720
Passaic	3,016,540
Camden	2,493,625
Middlesex	2,116,745
Mercer	1,924,070
Monmouth	1,572,250
Morris	1,226,030
Atlantic	1,209,785
Burlington	945,985
Somerset	725,385
Cumberland	713,625
Gloucester	704,215
Warren	489,320
Salem	412,220
Ocean	367,675
Hunterdon	358,510
Sussex	288,945
Cape May	281,995

Source: N. J. Dept. Institutions & Agencies

It might be noted parenthetically that taking the adult bed capacity of the hospital as a whole it cost $2800.18 to maintain an adult hospital bed in 1946; and it cost $3711.46 to maintain an occupied hospital bed. It cost $112.60 per hospital adult admission during 1946, and $91.80 if all patient admissions including new-born are considered.

HOSPITAL SERVICE PLAN OF NEW JERSEY (Blue Cross)

The Hospital Service Plan of New Jersey, the first of the Blue Cross Plans as they are known today, was organized in 1932 through the cooperative movement of the hospitals. Today, there are 200 member hospitals.

The New Jersey Plan was also the first to provide inclusive family enrollment at a flat family subscription rate.

The Plan is 100% non-profit and is approved by the New Jersey Hospital Association and the Medical Society of New Jersey. It is the only plan in the State approved by the American Hospital Association. It is under the supervision of the Department of Banking and Insurance and the Department of Institutions and Agencies for the State of New Jersey.

The Plan provides hospital protection for its members and their families. The Plan agrees to pay for hospital bills up to a total of 21 days' hospitalization for the following hospital services rendered in semi-private or ward accommodations:

1. Bed and board
2. General nursing service
3. Routine laboratory examinations
4. X-rays connected and consistent with actual treatment
5. Routine medications, dressings, and plaster casts normally supplied by the hospital
6. Use of the operating room
7. Use of the delivery room in cases eligible for maternity services
8. Anesthetics if supplied by the particular hospital and administered by salaried employee of hospital

If the subscriber selects a private accommodation in a cooperating hospital, or any accommodation in any other general hospital, the Plan payment serves as a credit toward the total hospital bill for these services; and any balance of the bill is chargeable to the patient.

After the first 21 days of benefits, the Plan allows up to $3.00 per day toward the hospital bill up to 90 additional days.

In the event that an eligible person requires hospital emergency services through accidental injury which does not result in admission as a hospital bed patient, the Plan will reimburse the person up to $8.00 for hospital services received for each such injury.

Since its organization to the end of March, 1947, Blue Cross payments for hospitalization totalled $23,801,191 for 358,623 persons hospitalized.

HOSPITALIZATION EXPERIENCE UNDER HOSPITAL SERVICE PLAN
OF NEW JERSEY (Blue Cross)
1933 - 1946

Year	Persons enrolled	Total cases hospitalized	Payments to hospitals
1933	2,798	123	$5,764
1934	4,107	332	11,694
1935	10,900	619	38,842
1936	18,977	1,567	84,709
1937	31,189	2,901	137,939
1938	111,893	3,986	265,825
1939	180,057	12,845	782,073
1940	241,770	17,618	1,115,250
1941	340,179	24,161	1,564,813
1942	417,821	33,365	2,124,030
1943	570,267	43,996	2,882,266
1944	651,411	53,531	3,413,942
1945	767,000	66,537	4,492,469
1946	929,915	75,336	5,100,215
Aggregate to April 1, 1947	990,333	358,623	$23,801,191

Source: Hospital Service Plan of New Jersey

A summary of the operation of the Hospital Plan of New Jersey for 1946 is given below:

NON-MATERNITY AND MATERNITY CASES HOSPITALIZED UNDER
HOSPITAL SERVICE PLAN OF NEW JERSEY (Blue Cross)
1946

Service	Total cases hospitalized	Patient days	Paid to hospitals
Non-maternity	60,391	585,401	$3,913,910.08
Maternity	14,945	136,455	1,186,304.99
Total	75,336	721,856	$5,100,215.07

Source: Hospital Service Plan of New Jersey

Of the 75,336 cases hospitalized 19.8 per cent were maternity patients, who were served 18.9 per cent of the total hospital days. The average payment to the hospital per non-maternity case was $64.81 and per maternity case $79.38. The per diem payments for each non-maternity case amounted to $6.69 and per diem payments for maternity cases were $8.69.

A study of the relative proportion of "Blue Cross" patients to the total patient load obtaining in 16 general voluntary hospitals in one year showed 22.2 per cent of total admissions were Blue Cross cases and had been served 19.1 per cent of all the patient days. The range in admissions was from 6.4 per cent to 39.0 per cent, and in-patient days from 5.8 per cent to 34.6 per cent.

The significant place of the Blue Cross patient in the operation of the voluntary general hospital is further graphically illustrated on the basis of a special study made in one of the large voluntary general hospitals in Essex County.

Type of accommodation	Per cent of Blue Cross patients to total	
	Number of patients	Number of patient days
Total	35.8%	30.1%
Private	44.6	42.7
Semi-private	47.2	40.7
Ward-Private	11.1	11.7
Ward-General	7.4	7.2

Source: N. J. Dept. Institutions & Agencies

MEDICAL-SURGICAL PLAN OF NEW JERSEY

The Medical-Surgical Plan of New Jersey is a non-profit corporation organized by the Medical Society of New Jersey supplementing the activities of the Hospital Service Plan of New Jersey.

Subscribers of the Hospital Service Plan with under-average income may also subscribe to the Medical-Surgical Plan and be eligible to medical, surgical, maternity, anesthesia, and consulting services rendered to them while bed patients in hospitals by fully licensed physicians.

In addition, the Plan has found it possible to pay benefits under the following conditions: 1. Tonsillectomies performed in physician's office; 2. Maternity services rendered anywhere at time of full term delivery; 3. Emergency surgical services rendered in the out-patient departments of hospitals without admission for bed occupancy; 4. Emergency surgical services occasioned by accidental injury rendered anywhere within 24 hours after the accident, if in the Plan's opinion such treatment should ordinarily require hospital bed occupancy, for which the Plan will pay in accordance with its schedule of benefits, but not to exceed $25.00 in connection with any one accident.

All matters pertaining to enrollment, billing, collections and general accounting are serviced through the facilities of Hospital Service Plan of New Jersey (Blue Cross). All matters respecting physician and patient relationship, standards of medical care, determination of eligibility of claims, and claim payments are handled through a separate office maintained by Medical-Surgical Plan.

The first contract for enrollment of employees and their dependents was issued on July 1, 1942. The enrollment as of April 30, 1947 was 104,840 persons.

During the month of April, 1947, the earned subscription of the Plan amounted to $70,700.17 and the claims incurred in that month in accordance with its schedule of benefits totalled $55,946.50. The earned reserve of the Plan as of April 30, 1947 was $199,581.35.

TECHNICAL PERSONNEL IN ALL HOSPITALS

On the basis of reports furnished to the American Medical Association New Jersey had 1443 full-time and 180 part-time technical personnel employed in all of its hospitals.

TECHNICAL PERSONNEL IN NEW JERSEY HOSPITALS

Classification	Number	
	Full-time	Part-time
Total	1443	180
Medical Technologists	438	47
X-Ray Technicians	206	27
Dietitians	262	10
Physical Therapists	132	23
Pharmacists	85	21
Medical Records Librarians	105	35
Occupational Therapists	122	9
Nurse Anesthetists	87	4
Clinical Photographers	6	4

Source: American Medical Association

IV. TUBERCULOSIS SANATORIA

FACILITIES AND SERVICES

Details concerning the facilities available to tuberculous patients in public sanatoria in New Jersey are listed in the table below on which are also given figures on the services rendered during 1946.

TUBERCULOSIS SANATORIA FACILITIES AND SERVICES IN NEW JERSEY
1946

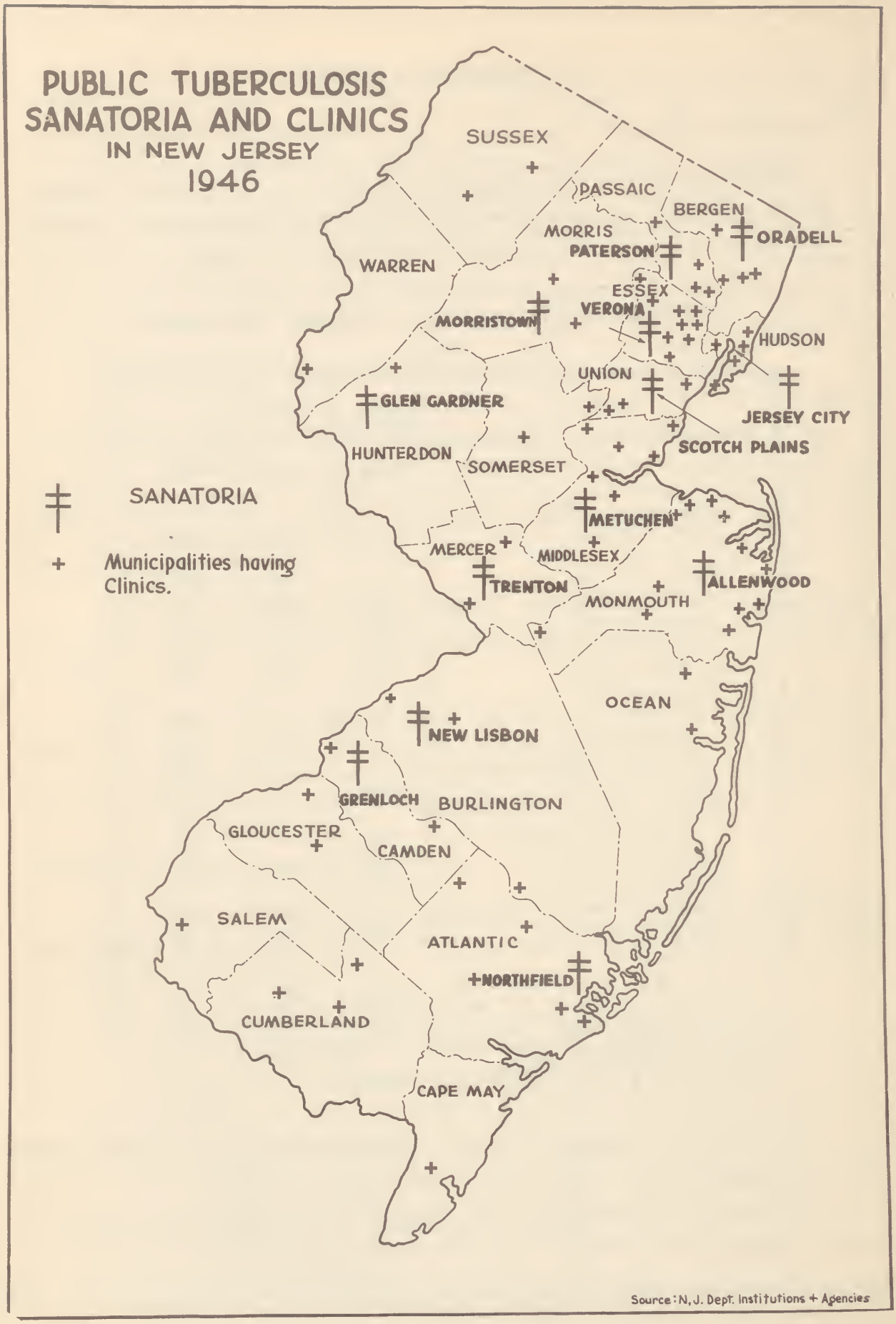
	Number of beds	Average census	Admissions
Total	3609	2650	4037
State Sanatorium			
Glen Gardner	316	285	335
County and City	2847	2029	3026
Atlantic County	103	38	70
Bergen County	147	147	192
Burlington County	112	80	71
Camden County	237	140	181
Essex County			
Verona	444	277	417
Belleville	30	21	23
Newark City Hospital	31	16	373
Hudson County	589	412	634
Mercer County *(Trenton)*			
Donnelly Memorial	100	74	170
Middlesex County	221	183	237
Monmouth County	100	84	95
Morris County	76	47	57
Passaic County	225	204	201
Union County	432	306	305
Charitable (2)	346	257	615
Proprietary (3)	100	79	61

Source: N. J. Dept. Institutions & Agencies

Included in the above facilities are approximately 430 beds for children with an average census of 298 and 654 admissions.

In addition to these facilities there are approximately 1050 beds set aside in mental hospitals for the accommodation of tuberculosis patients.

Chapter developed with the cooperation of the superintendents of the state and county sanatoria and the New Jersey Tuberculosis League.


PUBLIC TUBERCULOSIS
SANATORIA AND CLINICS
IN NEW JERSEY
1946
SANATORIA
Municipalities having Clinics.
SUSSEX
PASSAIC
BERGEN
MORRIS
PATERSON
ORADELL
WARREN
ESSEX
VERONA
MORRISTOWN
HUDSON
UNION
GLEN GARDNER
JERSEY CITY
SCOTCH PLAINS
HUNTERDON
SOMERSET
METUCHEN
MERCER
MIDDLESEX
TRENTON
ALLENWOOD
MONMOUTH
OCEAN
NEW LISBON
GRENLOCH
BURLINGTON
GLOUCESTER
CAMDEN
SALEM
ATLANTIC
NORTHFIELD
CUMBERLAND
CAPE MAY
Source: N.J. Dept. Institutions + Agencies

TREND IN SANATORIA UTILIZATION

The trend in the utilization of public tuberculosis sanatoria during the period 1930-1946 is shown in the following table:*

Year	Average number of adult patients	Number of adult admissions during year
1930	1768	3006
1935	2123	2792
1940	2724	2997
1941	2745	3066
1942	2739	3196
1943	2646	3113
1944	2367	2896
1945	2240	2638
1946	2167	2883

Source: N. J. Dept. Institutions & Agencies

*Excluding Newark City Hospital (Tuberculosis Ward) used primarily as receiving unit for transfer of patients to the Essex County Sanatorium

It appears that during the war period there was a considerable decline in tuberculosis sanatoria admissions and a resultant reduction in the patient load. Sanatorium administrators agree that this decline was largely due to the unusual employment opportunities available during the war years which kept some patients from entering sanatoria and caused other patients to leave even against the advice of the physician.

It will be noted that since the ending of the war the admissions to tuberculosis sanatoria are again on the increase.

TUBERCULOSIS PATIENTS BY COUNTIES

Around 2250 adult patients were maintained in 18 of the 20* tuberculosis sanatoria *(public and private)* on June 30, 1946, shown by county of residence in the following table:

COUNTY OF RESIDENCE OF ADULT PATIENTS
IN TUBERCULOSIS SANATORIA IN NEW JERSEY
(State, County, and Private)
1946

County	Resident population June 30, 1946
All counties	2250
Atlantic	59
Bergen	145
Burlington	60
Camden	134
Cape May	8
Cumberland	24
Essex	396
Gloucester	23
Hudson	380
Hunterdon	19
Mercer	115
Middlesex	174
Monmouth	103
Morris	56
Ocean	20
Passaic	209
Salem	16
Somerset	40
Sussex	10
Union	226
Warren	17
Out of State	16

Source: N. J. Dept. Institutions & Agencies

*The two sanatoria not included are: the ward at Newark City General Hospital, at which patients stay short periods while awaiting transfer to the Essex County Sanatoria, and Deborah Sanatorium which takes primarily out-of-state patients.

TUBERCULOSIS CLINICS*

Some 36 clinic services report monthly to the New Jersey Tuberculosis League. They operate under auspices of sanatoria, boards of health, county tuberculosis leagues and general hospitals. The 88 centers are located in 6 sanatoria, 33 general hospitals, 13 municipal buildings, 2 tuberculosis association offices, and various other health centers.

Equipment is available in sanatoria and general hospitals for the services required for modern diagnostic treatment. Clinicians, nurses, and clerical workers are supplied by sanatoria, health department, county freeholders, Red Cross, and tuberculosis associations. Private practitioners sometimes contribute services as clinicians, while Glen Gardner extension clinicians supply a large share of the medical service for rural communities.

In 1945, clinic sessions numbered 6,144 extending over a period of 11,114 clinic hours. The sessions were attended by 28,152 patients of whom 14,920 were new cases. Of the new patients, 1,469 were diagnosed as reinfection pulmonary tuberculosis. There were 21,783 patients on the active clinic register December 31,1945.

The Portable X-ray unit is increasingly employed in mass screening operations conducted in schools, factories, housing projects, migrant camps, and community centers. Three units are now in operation under State Health Department auspices. County tuberculosis associations own equipment in Camden, Somerset, Middlesex, and Union Counties.

Draftees have had the benefit of X-ray examination since the beginning of selective service in New Jersey and 6,112 persons have been referred for follow-up service.

TUBERCULOSIS DEATHS BY COUNTIES

In the five-year period 1941-1945 the number of deaths from tuberculosis in New Jersey averaged 1836 and represented a death rate of 45 per 100,000 of the total general population. As the following table shows there are considerable variations in the tuberculosis death rate among the several counties.

*From "Tuberculosis Control in New Jersey - 1945" New Jersey Tuberculosis League, Inc., 1946.

TUBERCULOSIS DEATHS BY COUNTIES IN NEW JERSEY

Five Year Averages

1941 - 1945

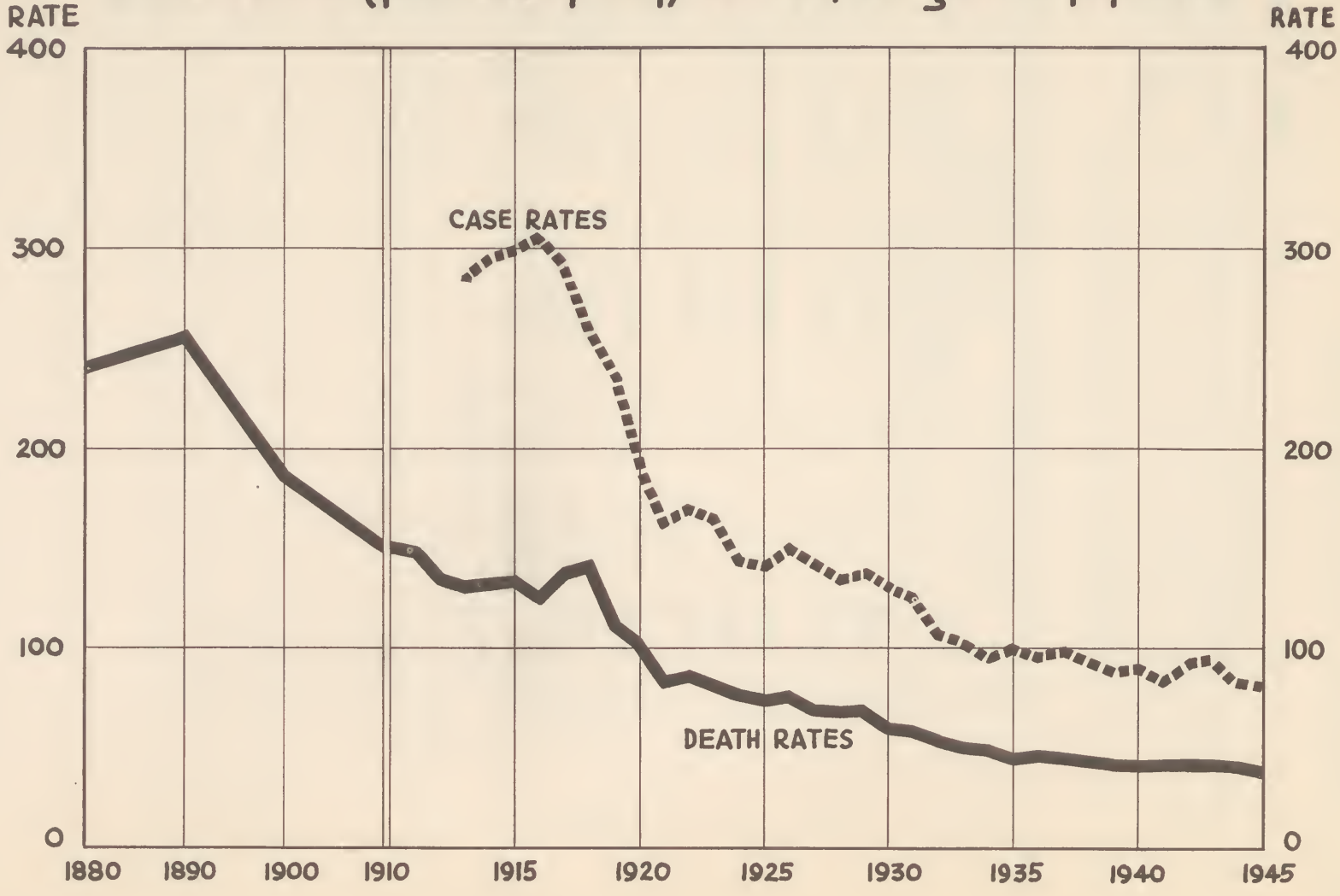
County	Number of deaths	Rate per 100,000 general population
All counties	1,836	45.0
Atlantic	73	67.9
Bergen	119	28.3
Burlington	39	43.4
Camden	115	45.3
Cape May	10	35.6
Cumberland	26	35.4
Essex	437	53.0
Gloucester	27	36.1
Hudson	346	57.9
Hunterdon	10	29.2
Mercer	112	57.0
Middlesex	91	40.6
Monmouth	69	40.1
Morris	45	35.4
Ocean	17	45.8
Passaic	117	39.8
Salem	14	32.9
Somerset	23	33.5
Sussex	9	27.9
Union	117	35.1
Warren	20	41.2

Source: N. J. Dept. Health

TUBERCULOSIS CASE AND DEATH RATES IN NEW JERSEY

..... Cases Reported (all forms) Per 100,000 general population

——— Deaths (pulmonary only) Per 100,000 general population



Source : N.J. Dept. Health

TREND IN TUBERCULOSIS CASE AND DEATH RATES

One of the most encouraging features in the anti-tuberculosis campaign in New Jersey and elsewhere is the constantly declining number of tuberculosis cases and deaths occurring in the general population. The following figures depict this graphically for the state as a whole.

Year	Rate per 100,000 general population	
	Tuberculosis cases reported	Tuberculosis deaths
1920	191.86	114.8
1930	130.59	69.4
1940	88.92	43.8
1941	85.55	44.5
1942	93.03	43.9
1943	94.52	46.8
1944	83.37	44.1
1945	81.24	41.1

Source: N. J. Dept. Health

V. MENTAL HOSPITALS

FACILITIES AND SERVICES

A summary of the presently available bed facilities for patients in mental hospitals, and figures on the hospital population and admissions are presented below:

MENTAL HOSPITAL FACILITIES IN NEW JERSEY

1946

Mental hospitals	Rated normal bed capacity	Average census	Total admissions
Total	13,782	17,758	5,599
State	8,877	11,549	3,466
Greystone Park	4,237	5,685	1,604
Trenton	2,852	3,099	967
(Criminal Unit included above)		*(236)*	*(102)*
Marlboro	1,788	2,765	895
County	4,442	5,784	1,371
Essex	1,875	2,439	678
Hudson	1,100	1,781	352
Camden	700	733	100
Cumberland	285	252	54
Burlington	250	256	37
Atlantic	232	323	150
Proprietary (13)	463	425	762

Source: N. J. Dept. Institutions & Agencies

These facilities do not include the Arthur Brisbane Child Treatment Center, which until recently was associated with the State Hospital at Marlboro but is now located in Allaire, New Jersey. This unit serves as a center for the reception, examination, and treatment of emotionally disturbed children.

Chapter developed in cooperation with directors of state and county hospitals and of mental hygiene clinics.

OVERCROWDING IN STATE MENTAL HOSPITALS

The normal capacities of the 3 state mental hospitals have been calculated on the basis of space standards promulgated by the American Psychiatric Association. With these capacities as a base the situation in regard to overcrowding appears on the following table:

Hospital	Normal capacity	Average census 1946	Number over capacity	Per cent overcrowded
Greystone Park	4237	5685	1448	34.2%
Marlboro	1788	2765	977	54.6
Trenton	2852	3099	247	8.7

Source: N. J. Dept. Institutions & Agencies

According to these standards the patient overload in the three hospitals is 2672. These standards are admittedly high; but by any lower acceptable standards the state hospitals are still overcrowded by at least 1800-2000.

MENTAL HOSPITAL PATIENTS BY COUNTIES

Five of the most populous counties in the state contributed 63.2 per cent of the 17,311 patients in state and county mental hospitals on June 30, 1946. These counties are Essex, Hudson, Passaic, Bergen, and Union.

COUNTY OF RESIDENCE OF PATIENTS IN
STATE AND COUNTY MENTAL HOSPITALS IN NEW JERSEY

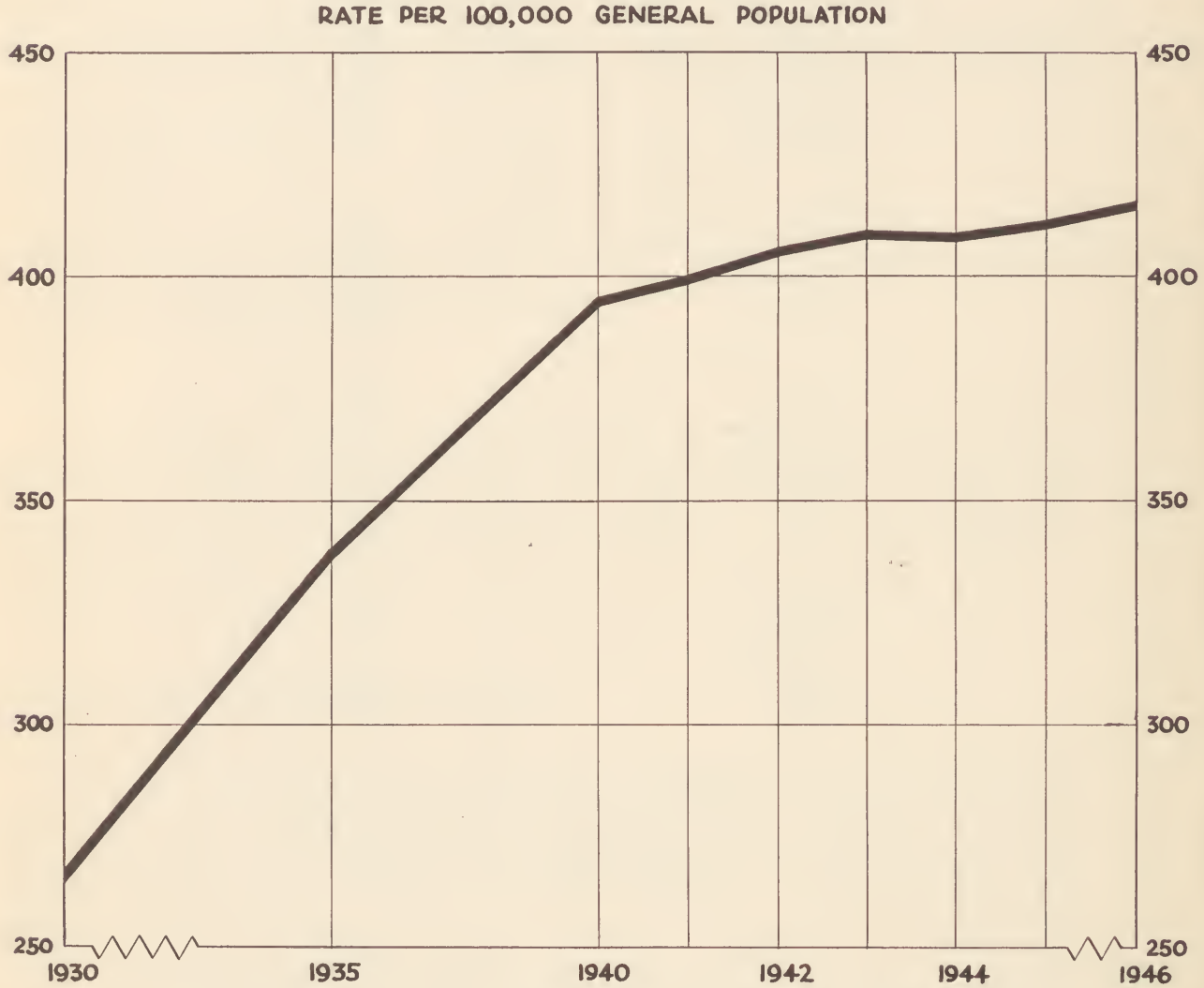
1946

County	Resident population* (June 30, 1946)
All counties	17,311
Atlantic	443
Bergen	1,184
Burlington	390
Camden	952
Cape May	95
Cumberland	303
Essex	4,547
Gloucester	217
Hudson	2,760
Hunterdon	164
Mercer	791
Middlesex	912
Monmouth	749
Morris	517
Ocean	160
Passaic	1,290
Salem	137
Somerset	253
Sussex	115
Union	1,152
Warren	173
Out of State	7

Source: N. J. Dept. Institutions & Agencies

*These figures exclude 120 patients who were on temporary visit on that date.

MENTAL HOSPITAL PATIENTS AND THE GENERAL POPULATION IN NEW JERSEY 1930-1946



Source : N.J. Dept. Institutions + Agencies

TREND IN MENTAL PATIENTS

In the sixteen-year span 1930-1946 the average patient population in state and county mental hospitals increased from 10,739 to 17,333, although it is to be noted that in the last five years there was a decided slowing-up both in the number of hospital admissions of mental patients and in the accumulation of patients in mental hospitals.

PATIENTS IN STATE AND COUNTY MENTAL HOSPITALS IN NEW JERSEY

1930 - 1946

Fiscal year	Patients in state and county mental hospitals		Rate per 100,000 general population	
	Average census	Number of first admissions	Average census	Number of first admissions
1930	10,739	2,722	265.7	67.4
1935	14,095	3,001	343.7	73.2
1940	16,420	3,271	394.7	78.6
1941	16,605	3,502	399.1	84.2
1942	16,917	3,608	406.6	86.7
1943	17,042	3,358	409.6	80.7
1944	16,987	3,344	408.3	80.4
1945	17,143	3,465	412.1	83.3
1946	17,333	3,674	416.6	88.3

Source: N. J. Dept. Institutions & Agencies

The following may be advanced as reasons for the growing number of mental hospital patients:

First, the transformation of mental institutions from custodial asylums into well-equipped hospitals with programs of treatment and rehabilitation. Many patients who formerly would have avoided mental hospital admission are now cognizant of the benefits of institutional care.

Second, earlier recognition of mental disorders, particularly among those with milder forms of mental disease, and utilization of mental hospitals for treatment purposes.

Third, the progressive "aging" of the state population has swelled the numbers of the older people among whom relatively more mental disease occurs. At the same time, homes for the aged and infirm are showing increased disinclination to accept persons with mental disorders.

THE AGED MENTALLY ILL

Mental illness among the aged constitutes a large and growing public health problem even if based only on mental hospital figures. Such figures admittedly are incomplete, since many aged persons who suffer from mental illnesses associated with old age, chiefly arteriosclerosis and the senile psychoses, are cared for in the community.

First admissions to mental hospitals in New Jersey and elsewhere show an increasing proportion of persons 65 years and older.

	1920	1940	1945
Total first admissions	1,743	3,271	3,465
Persons 65 years and over	230	824	1,102
Per cent of first admissions 65 years and over	13.2%	25.2%	31.8%

Source: N. J. Dept. Institutions & Agencies

The incidence of hospitalized mental illness among the aged is increasing at a more rapid rate than can be accounted for by the increase in the number of aged persons in the general population of the state. It is shown by the fact that in 1920, 172 individuals were admitted to mental hospitals per 100,000 of the population aged 65 and over, while in 1946 the corresponding rate was approximately 415 per 100,000 of the population aged 65 years and over.

MENTAL HYGIENE CLINICS

Mental hygiene clinics are designed to deal with the numerous mental and personal maladjustments. They serve both children and adults who are in need of guidance and help in remedying personality difficulties and emotional conflicts; children with reading disabilities, speech difficulties, behavior disorders, and school adjustment problems; adults with so-called "nervous difficulties" or apprehensive mental disorders; persons who are uncertain about educational or vocational abilities and training.

COMMUNITY MENTAL HYGIENE SERVICES IN NEW JERSEY

1947

Sponsorship and type	Number of facilities
State Operated	
Community Clinic	
Psychiatric and psychological	26
Psychiatric or psychological	5
Institutional Clinic	
Psychiatric and psychological	2
Psychiatric or psychological	8
Non-State Facility	
Community Clinic	
Psychiatric and psychological	20
Psychiatric or psychological	9

Source: N. J. Dept. Institutions & Agencies

State-operated clinics were conducted in some 31 different New Jersey communities in 1947 and nearly 900 clinic sessions were held. In 26 of these communities regular clinic schedules were maintained for combined psychological and psychiatric services. In communities where attendance warranted clinics were operated on a weekly schedule while in others bi-weekly or monthly schedules were adopted. In a number of towns where regular clinics could not meet the particular needs, special psychological and special psychiatric clinics were held. Many of these special clinics were held in schools or institutions.

Additional psychiatric clinic services were rendered by the Essex County Mental Hygiene Clinics, Essex County Juvenile Clinic, Child Guidance Department of the Newark Board of Education, etc.

During the last five years, New Jersey state mental hygiene clinics have cared for more than 3,000 different patients annually. In the course of each year these patients made an average of approximately 4,000 visits.

MENTAL HYGIENE PROGRAM

A comprehensive mental hygiene program would include:

1. Continuing our efforts to transform existing mental hospitals into modern treatment and curative institutions. This means the provision of adequate treatment facilities and a trained medical staff with consultants to carry on intensive treatment work, using the approved methods of treatment applicable to these patients.

2. Extending psychiatric social service or follow-up field work, so as to enable mental hospitals to parole early under proper conditions and safeguard a greater number of patients who can be satisfactorily adjusted in the community.

3. Extending the system of mental hygiene clinics based on the mental hospitals to serve the communities in the diagnosis of mental and nervous disorders, and to reach potential sufferers from nervous or mental disorders before the definite breakdown occurs.

4. Recognizing that part of a working plan for the guidance of school teachers, nurses, and medical officers in their work with children which will enable them to note evidences of nervous and mental instabilities on the basis of which they may direct suitable cases to the nearest psychiatric clinic where advice and preventive treatment may be secured.

5. Encouraging local communities to develop psychiatric departments for mental and nervous patients as part of the local general hospitals.* Such a psychiatric department connected with a general hospital would be valuable as a "first aid station". It is suitable for the nervous patient who feels the need of special care but is unwilling to go to a public hospital for mental disease.

*For details see The Care and Treatment of Nervous and Mental Patients in General Hospitals, By Emil Frankel and T. B. Kidner, Publication 18, N. J. Department of Institutions and Agencies.

RELATED MENTAL HYGIENE INSTITUTIONS

The Federal Hospital and Construction Act specifically excludes institutions for the mentally deficient and epileptics from participation in the Federal fund-matching program. It seems advisable, however, to make a brief reference in this source book to these related hospital facilities:

Institution	Resident population June 30, 1946	Total admissions during year
North Jersey Training School *Females aged 8-21 years - Trainable*	621	73
State Colony for Feebleminded Males - New Lisbon *Males aged 8 years and over - High grade imbeciles and morons*	882	92
Vineland State School *Females aged 5 years and over - all levels*	1743	104
State Colony for Feebleminded Males - Woodbine *Males aged 5 years and over - low grade*	766	65
Vineland Training School (State Wards) *Both sexes - high grade*	331	14
State Village for Epileptics - Skillman *Both sexes, aged 5 years and over*	1443	78

Source: N. J. Dept. Institutions & Agencies

VI. FACILITIES FOR CHRONICS AND CONVALESCENTS

FACILITIES AND SERVICES

Considering the two county hospitals for chronic diseases *(Camden and Hudson)* and including 19 public welfare houses, 6 charitable homes for chronics and convalescents, and the 80 relatively small proprietary nursing and convalescent homes, we have provisions for 5,545 chronic and convalescent patients.

FACILITIES FOR CHRONICS AND CONVALESCENTS IN NEW JERSEY
1946

Auspices	Number of beds	Average census	Admissions
Total	5545	4507	4643
Long-Term *(Chronics)* Hospitals	302	241	163
Hudson County General Hospital	218	175	113
Camden County General Hospital	84	66	50
Welfare Houses Offering Chronics Care	3248	2659	1393
County	2428	1981	901
Atlantic	112	82	50
Bergen	205	145	112
Burlington	150	126	88
Camden	200	207	143
Cape May	80	51	20
Cumberland	110	75	40
Gloucester	66	69	47
Hudson	529	418	108
Monmouth	155	147	27
Middlesex	52	52	48
Morris	90	88	49
Passaic	424	363	91
Salem	90	51	21
Sussex	80	40	21
Warren	85	67	36
Municipal	820	678	492
Newark	475	403	260
Orange	60	53	56
Trenton	225	191	156
Paterson	60	31	20
Nursing and Convalescent Homes	1995	1607	3087
Charitable (6)	398	218	541
Proprietary (80)	1597	1389	2546

Source: N. J. Dept. Institutions & Agencies

Chapter developed with the cooperation of Dr. Ellen C. Potter, Laura M. Howell and F. Spencer Smith.

NUMBER OF CHRONICALLY ILL

In the "chronic" disease group there are included generally those diseases or affections which persist for relatively prolonged periods of time, as contrasted with "acute" illnesses of short duration, or convalescence periods of only a few weeks.

Patients suffering from chronic diseases generally are unable to follow the customary daily routine of the average normal person and are in definite need of medical or nursing care of varying extent and over prolonged periods.

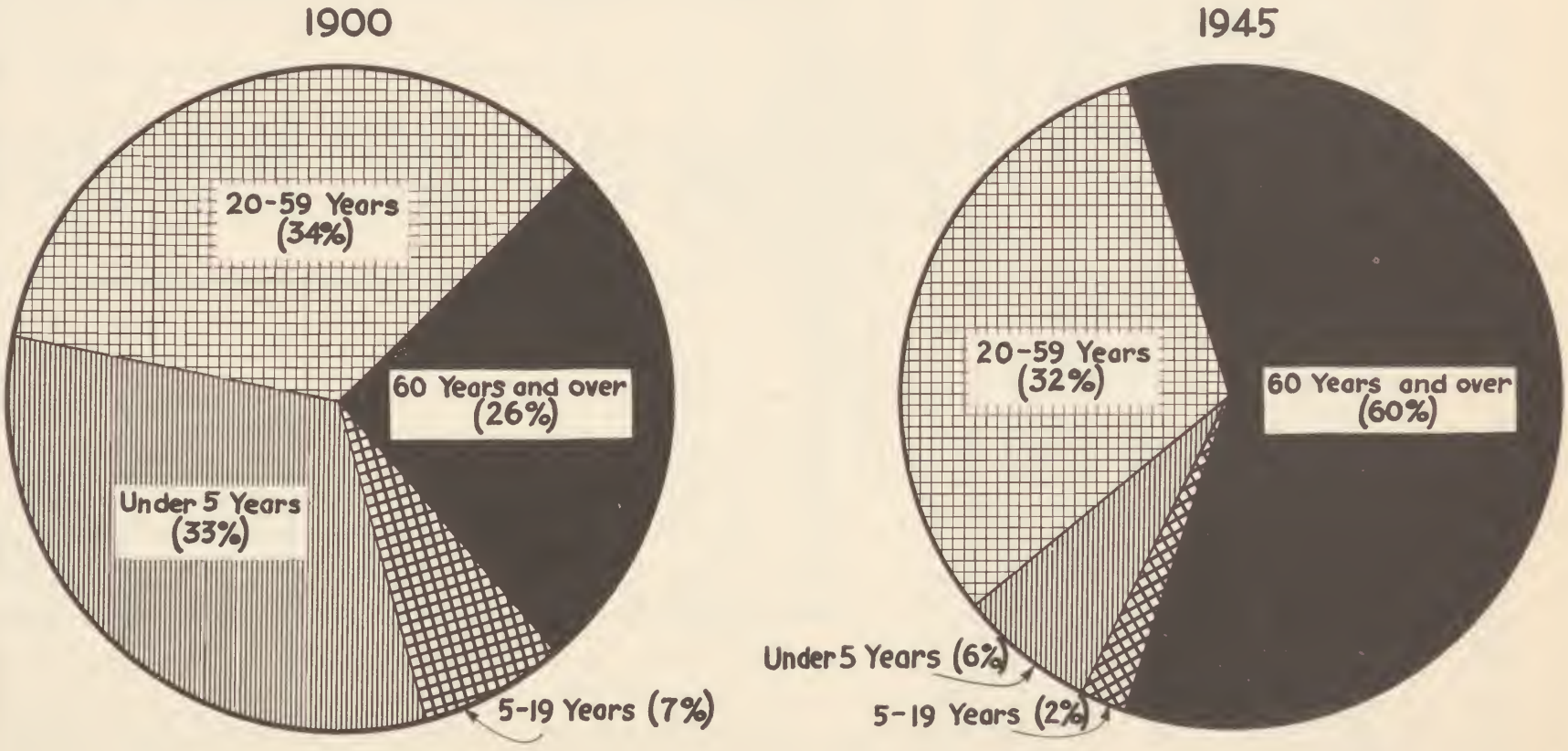
Definite figures on the prevalence of chronic diseases among the population of New Jersey are not available. We may resort to estimates based upon the authoritative calculations resulting from the house-to-house canvass made by the National Health Survey in 1935-1936. According to these findings the following New Jersey figures may be deduced:

CHRONICALLY ILL IN NEW JERSEY
Estimated by Counties

County	Number of persons with chronic disease or permanent impairment	Number of chronic invalids
All counties	736,350	47,425
Atlantic	21,960	1,414
Bergen	72,507	4,670
Burlington	17,171	1,106
Camden	45,264	2,915
Cape May	5,119	330
Cumberland	12,954	834
Essex	148,209	9,546
Gloucester	12,783	823
Hudson	115,411	7,433
Hunterdon	6,508	419
Mercer	34,925	2,249
Middlesex	38,423	2,475
Monmouth	28,539	1,838
Morris	22,255	1,433
Ocean	6,674	430
Passaic	54,755	3,527
Salem	7,482	482
Somerset	13,167	848
Sussex	5,245	338
Union	58,117	3,743
Warren	8,882	572

Source: N. J. Dept. Institutions & Agencies

TOTAL DEATHS BY AGE GROUPS IN NEW JERSEY 1900 and 1945



Source: N.J. Dept. Health

The estimated number of chronic disease cases and invalids in New Jersey among the more important chronic diseases are given below:

Disease	Estimated number of chronic disease cases in New Jersey	Estimated number of invalids in New Jersey
Rheumatism	226,050	4,870
Heart diseases	122,100	4,750
Arteriosclerosis and high blood pressure	122,100	2,010
Nephritis and other kidney diseases	51,150	1,020
Cancer and other tumors	30,690	920
Diseases of female organs	23,760	610
Diabetes mellitus	21,780	1,130

Source: N. J. Dept. Institutions & Agencies

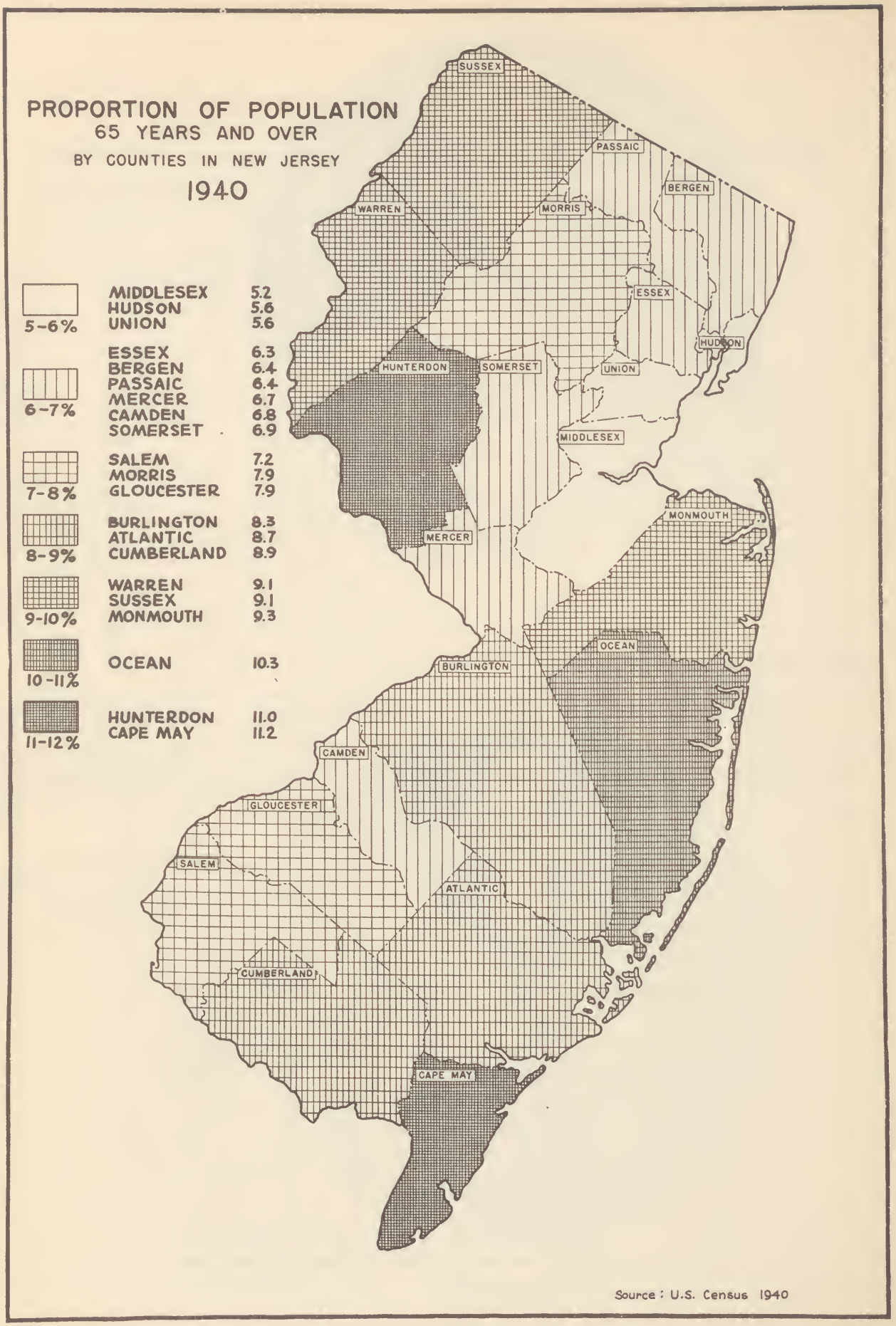
THE AGING OF THE POPULATION

The problem of the chronically ill is becoming increasingly acute because, as the average expectancy of life increases, so does the proportion of persons of the ages in which we find the majority of the chronically ill.

The significant changes in the age distribution of deaths occurring in New Jersey in the forty-five year period, between 1900 and 1945, giving a striking illustration of the effects of the public health and related movements, are illustrated in the following figures:

Age at death	Per cent of total deaths in specified age period	
	In 1900	In 1945
Under 5 years	33%	6%
5 - 19 years	7	2
20 - 59 years	34	32
60 years and over	26	60
Total	100%	100%

Source: N. J. Dept. Health



Source : U.S. Census 1940

The following figures illustrate the growing number as well as proportion of the "older folks" in New Jersey's general population over a period of sixty years:

Year	Population 65 years and over	
	Number	Per cent in total general population
1880	45,242	4.0%
1900	79,617	4.2
1920	133,481	4.2
1940	278,821	6.7

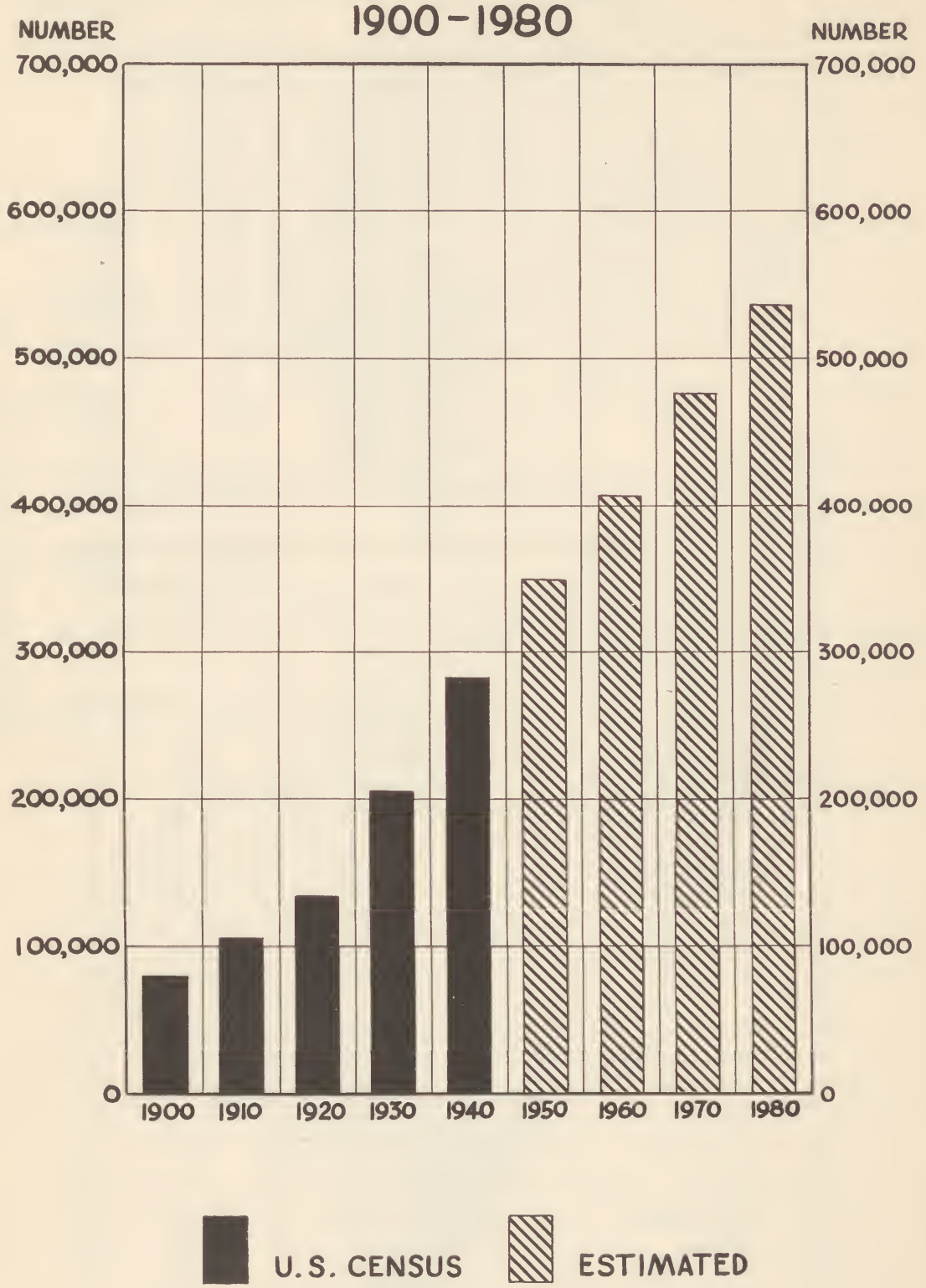
Source: U. S. Census Bureau

PERSONS 65 YEARS AND OVER IN COUNTIES OF NEW JERSEY
1940

County	Number 65 years & over	Per cent of total population
All counties	278,821	6.7%
Essex	53,061	6.3
Hudson	36,746	5.6
Bergen	26,042	6.4
Passaic	19,925	6.4
Union	18,510	5.6
Camden	17,414	6.8
Monmouth	15,067	9.3
Mercer	13,172	6.7
Middlesex	11,292	5.2
Atlantic	10,848	8.7
Morris	9,882	7.9
Burlington	8,073	8.3
Cumberland	6,504	8.9
Gloucester	5,697	7.9
Somerset	5,106	6.9
Warren	4,584	9.1
Hunterdon	4,033	11.0
Ocean	3,869	10.3
Cape May	3,246	11.2
Salem	3,060	7.2
Sussex	2,690	9.1

Source: U. S. Census Bureau

PERSONS 65 YEARS OF AGE AND OVER IN NEW JERSEY 1900-1980



Source : U.S. Census

PROGRAM FOR THE LONG-TERM PATIENT

Any program for the long-term patient must embrace the following elements:

1. Recognition of the fact that there cannot be one level of medical care for acutely ill persons and another, inferior level of medical care for chronically ill persons. The quality of medical care must be essentially the same for both groups and it must be available irrespective of capacity to pay.

2. Recognition that a comprehensive program of medical, hospital, and nursing home care must be provided, utilizing both public and private resources.

3. A central information service in the community to promote public understanding of the needs of the chronically ill.

4. A medical program directed toward early detection and early treatment of illnesses -- which are likely to develop into chronic illnesses if left untreated.

5. Medical research directed toward preventing chronic illness.

VII. COMMUNICABLE DISEASE HOSPITALS

Special hospitals for contagious diseases are maintained at county expense in each of three counties in New Jersey - Bergen, Essex and Hudson. A special contagious disease hospital is also maintained at municipal expense in seven cities - Atlantic City, Camden, Elizabeth, Jersey City, Passaic, Paterson and Trenton. In Morris County a separate contagious disease pavilion as a county project is maintained in connection with a general hospital in Morristown.

Data about the location of special contagious disease hospitals, their normal capacity and the extent to which they were utilized in 1946 are shown below:

CONTAGIOUS DISEASE HOSPITALS IN NEW JERSEY

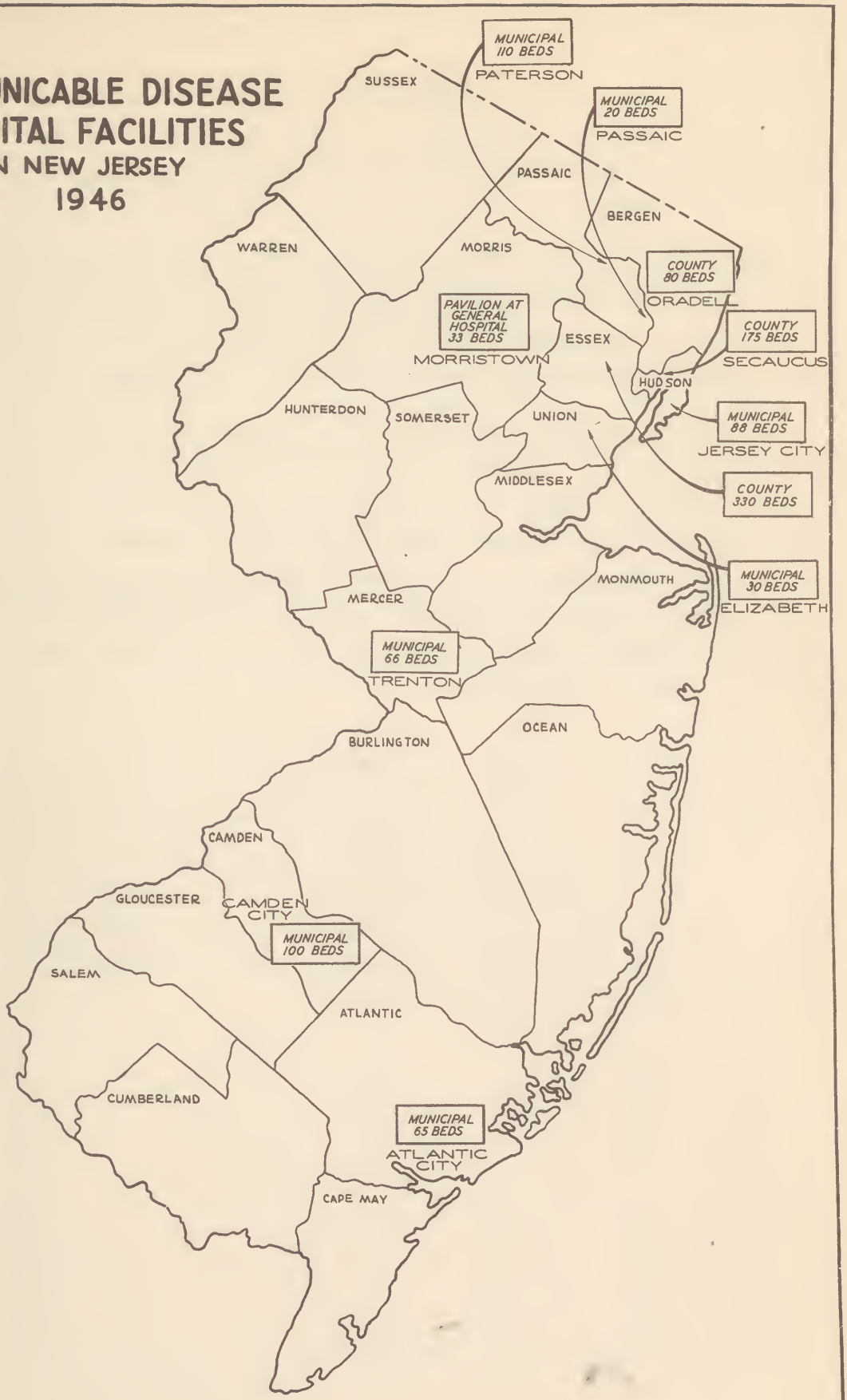
1946

Hospital location	Number of beds	Average census	Admissions
Total	1097	339	5480
Atlantic City Municipal Hospital	65	1	8
Bergen County Hospital	80	24	307
Camden Municipal Hospital	100	17	299
Essex County Hospital for Contagious Diseases	330	124	2576
Hudson County Hospital for Contagious Diseases	175	66	819
Jersey City Isolation Hospital	88	59	714
Donnelly Memorial Hospital *(Contagion Unit)*	66	2	82
Morristown Memorial Hospital *(Havemeyer Pavilion)*	33	10	321
Passaic City Isolation Hospital	20	2	68
Paterson City Isolation Hospital	110	33	234
Elizabeth City Isolation Hospital	30	1	52

Source: N. J. Dept. Health

Chapter developed by the State Department of Health

COMMUNICABLE DISEASE HOSPITAL FACILITIES IN NEW JERSEY 1946



Source: N. J. Dept. Institutions + Agencies

While the northeastern section of New Jersey is relatively well supplied with special hospital facilities of this type, there are sections of the State, particularly from Camden to Atlantic City, lacking such facilities.

Admission of cases on a fee basis to municipal contagious disease hospitals when the patient resides outside the municipality maintaining the institution is dependent entirely upon the decision of the local authorities. Local policy in this respect is not uniform.

There is a growing trend supported by professional opinion favoring the admission and treatment of cases of communicable diseases in general hospitals. Cases of such diseases as typhoid fever, pneumonia, malaria and undulant fever are accepted in general hospitals. Infantile paralysis and meningococcic meningitis are accepted by some general hospitals. The feasibility of treating cases of such diseases as diphtheria and scarlet fever in general hospitals under special precautions is being viewed more and more favorably.

Venereal disease clinics are being operated in many general hospitals. In New Jersey there has been adopted the plan of applying the intensive treatment of cases of early syphilis in general hospitals rather than establishing separate special "rapid treatment centers" for such cases. More details about this plan are given in Chapter XII, Public Health Services. In this chapter will also be found data on recorded cases and deaths from communicable diseases together with brief comments on certain control programs.

VIII. PHYSICIANS

NUMBER OF PRACTISING PHYSICIANS

As of January, 1946, New Jersey had 5,655 physicians of whom 4,981 were in private practice. The remaining 674 were on the full-time staffs of institutions, clinics or agencies, or retired.

Within New Jersey there are wide fluctuations in the availability of physicians. Essex is the best supplied county - the ratio there is one physician to every 622 persons. At the other pole is Salem County where the ratio is 1281.

PHYSICIANS IN PRIVATE PRACTICE IN NEW JERSEY
1947

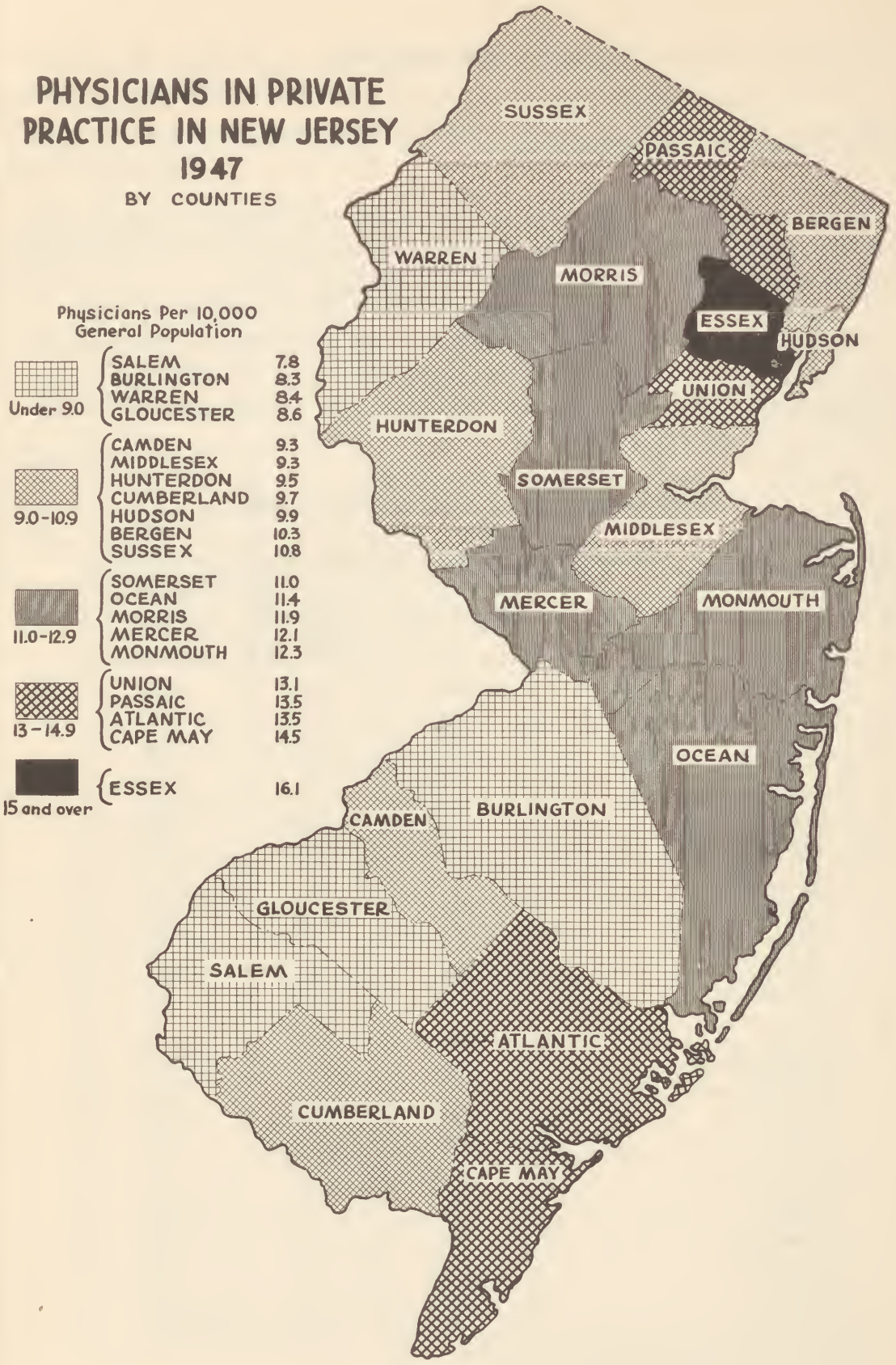
County	Number of physicians	Physicians per 10,000 general population	General population per physician
All counties	4,981	12.0	835
Atlantic	168	13.5	738
Bergen	422	10.3	971
Burlington	81	8.8	1,198
Camden	239	9.3	1,070
Cape May	42	14.5	689
Cumberland	71	9.7	1,031
Essex	1,347	16.1	622
Gloucester	62	8.6	1,165
Hudson	646	9.9	1,009
Hunterdon	35	9.5	1,050
Mercer	239	12.1	826
Middlesex	202	9.3	1,075
Monmouth	199	12.3	810
Morris	149	11.9	844
Ocean	43	11.4	877
Passaic	417	13.5	742
Salem	33	7.8	1,281
Somerset	82	11.0	907
Sussex	32	10.8	926
Union	430	13.1	764
Warren	42	8.4	1,195

Source: Medical Society of N. J.

Chapter developed with the cooperation of the Medical Society of New Jersey

PHYSICIANS IN PRIVATE PRACTICE IN NEW JERSEY 1947

BY COUNTIES



Source: Medical Society Of N.J.

The added comment might be made that there is a ratio of one private practitioner for every 835 persons in New Jersey; or one doctor of medicine to every 736 persons if all physicians are counted. This compares favorably with the national average of one medical practitioner to every 752 persons. Considering that New Jersey has no medical school *(it is, indeed, the most populous state in the union without one)* and that the huge medical centers at New York and Philadelphia are readily available from every part of the state, this is an index of an adequate supply of medical personnel.

The long-term trend in the total number of physicians residing in New Jersey may be gleaned from figures compiled by the American Medical Association:

NUMBER OF PHYSICIANS RESIDING IN NEW JERSEY

Year	Number of physicians
1906	2,332
1909	2,455
1912	2,884
1914	3,012
1916	3,239
1918	3,153
1921	3,260
1923	3,362
1925	3,567
1927	3,755
1929	4,045
1931	4,357
1934	4,915
1936	5,177
1938	5,433
1940	5,813
1942	6,008

Source: American Medical Association

AGE OF PRACTISING PHYSICIANS

A special study of the ages of practising physicians in New Jersey is given in the following table in broad age classification groups:

AGE OF PRACTISING PHYSICIANS IN NEW JERSEY

Age	Number	Per cent
Total	4782	100.0%
Under 35 years	1199	25.0
35 - 44 years	1516	31.7
45 - 54 years	936	19.6
55 - 64 years	683	14.3
65 years and over	448	9.4

Source: American Medical Association

RESIDENCIES TRAINING IN HOSPITALS

Residency training in hospitals is under the constant scrutiny of three national medical bodies - the American Medical Association, the American College of Surgeons and the various specialty examining boards. Most favorable status for development of a residency is affiliation with a medical school, graduate or undergraduate. Since New Jersey has no medical school in either category, one would expect that the number of residencies in this state would be small. However, the state has 146 approved residencies - as many as Maryland, Michigan or Massachusetts, all states of comparable population, but each having two or more medical schools.

APPROVED RESIDENCIES IN NEW JERSEY
1947

Service	Number
Total	146
Anesthesia	8
Chest Surgery	1
Communicable disease	7
Gynecology	4
Internal medicine	7
Malignancies	2
Obstetrics	16
Ophthalmology	5
Orthopedics	13
Otolarynology	6
Pathology	5
Pediatrics	5
Plastic surgery	2
Psychiatric	22
Radiology	2
Surgery	15
Tuberculosis	17
Urology	9

County	Number
Total	146
Hudson	68
Essex	35
Morris	13
Monmouth	9
Camden	7
Atlantic	5
Hunterdon	3
Mercer	3
Bergen	1
Burlington	1
Passaic	1

Source: Medical Society of N. J.

INTERNSHIPS IN HOSPITALS

New Jersey hospitals offer 464 internships of which 400 are approved by the American Medical Association. Most of the others are approved by the State Board of Medical Examiners, which requires only a minimum of 75 beds in a hospital compared to the 100 bed minimum required by the American Medical Association. A listing of all internships by counties follows:

INTERNSHIPS IN NEW JERSEY

By County
1947

County	Number of internships
Total	464
Atlantic	10
Bergen	27
Burlington	6
Camden	19
Essex	101
Gloucester	3
Hudson	140
Mercer	21
Middlesex	15
Monmouth	20
Morris	12
Ocean	5
Passaic	37
Somerset	6
Sussex	3
Union	35
Warren	4

Source: American Medical Association

IX. DENTISTS

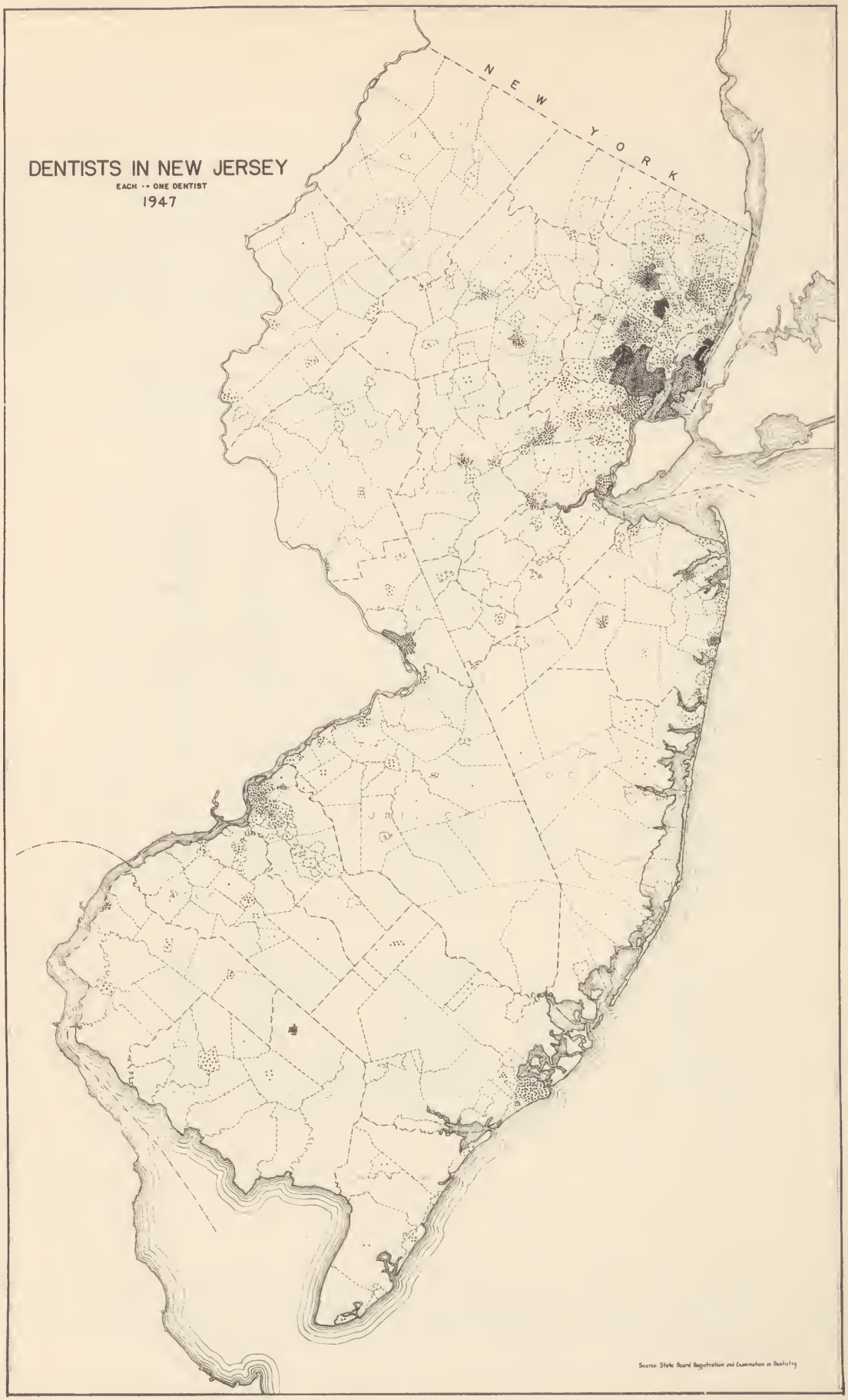
NUMBER OF PRACTISING DENTISTS

A recent census showed there were 3,317 practising dentists in New Jersey, which is equivalent to one dentist per 1,254 population, as against the national figure of 1 to 1,800. The distribution of dentists varies greatly between the different counties as the following table shows:

County	General population	Number of dentists	General population per dentist
All counties	4,160,165	3317	1254
Atlantic	124,066	95	1306
Bergen	409,646	303	1352
Burlington	97,013	43	2256
Camden	255,727	143	1788
Cape May	28,919	18	1607
Cumberland	73,184	46	1591
Essex	837,340	911	919
Gloucester	72,219	36	2006
Hudson	652,040	479	1361
Hunterdon	36,766	16	2298
Mercer	197,318	143	1380
Middlesex	217,077	138	1573
Monmouth	161,238	154	1047
Morris	125,732	98	1283
Ocean	37,706	28	1347
Passaic	309,353	275	1125
Salem	42,274	18	2349
Somerset	74,390	45	1653
Sussex	29,632	12	2469
Union	328,344	290	1132
Warren	50,181	26	1930

Source: State Dentistry Board

Chapter developed with the cooperation of the State Board of Registration and Examination in Dentistry and the New Jersey State Dental Society.


DENTISTS IN NEW JERSEY
EACH ·· ONE DENTIST
1947
NEW YORK
Source: State Board Registration and Examination in Dentistry

DENTAL SERVICES IN HOSPITALS

The following gives the available data on dental services in hospitals:

33 hospitals have dental clinics

39 hospitals have no dental clinics

25 hospitals have a dentist on call

10 hospitals employ dentists, paying them for time given institution

9 hospitals have dental internes.

In addition to the above, the Department of Institutions and Agencies provides dental services for all persons in its hospitals and institutions.

DENTAL FACILITIES IN ROUNDED PROGRAM

The rounded New Jersey dental program provides dental health services which include:

School Dental Programs. Sixty per cent of school districts have some dental care programs which constitute the most important phase of the dental health program in the state. These programs have been developed by local boards of education and departments of health cooperating with the local and State dental societies. In some areas the State Department of Health subsidizes dental care programs for children.

State and Local Health and Welfare Agencies. The State Department of Health through its dental division provides dental service programs in parochial schools, and trailer clinics in rural areas. Other local health and welfare agencies conduct dental programs in cooperation with the State and local dental societies. The State Board of Child Welfare provides dental services for its wards.

State Institutions. Dental services are provided for all the persons under their care.

Federal Government Programs. Some Federal Government programs have provided dental care from time to time, at present the one most active is the Veterans' Administration program of service-connected dental disability. This is being carried on mainly in private offices under an agreement between the Veterans' Administration and the State Dental Society. Some service is rendered in Veterans' Administration dental clinics.

Educational Programs. By no means the least important dental health service in New Jersey is the coordinated dental health education program carried on by the State Dental Society through its Council on Dental Health, the State Department of Health, the State Department of Education and the lay dental health committee.

X. NURSES

NUMBER OF GRADUATE REGISTERED NURSES IN NEW JERSEY 1940 - 1947

Year	Number
1940	11,754
1941	12,914
1942	14,002
1943	14,969
1944	15,544
1945	16,968
1946	18,292
1947 (As of July 1)	18,820

FIELDS OF NURSING OF GRADUATE REGISTERED NURSES IN NEW JERSEY 1946

Nursing field	Number
Total	18,292
Institutional other than general duty	1,468
General duty nursing	1,867
Public health nursing	692
Private duty nursing	2,091
School nursing	517
Office nursing	438
Industrial nursing	650
Other	346
Inactive [a]	5,905
Out of state	1,532
No information [b]	1,532
Military Service	1,254

[a] Might have been active at some period during the year

[b] May be active or inactive, no data being recorded

Chapter developed with the cooperation of the New Jersey State Board of Nursing and the New Jersey State Nurses Association. All figures cited furnished by the State Board.

GRADUATE REGISTERED NURSES IN NEW JERSEY

By Counties

1946

County	Number
All counties	18,292
Atlantic	186
Bergen	1,050
Burlington	149
Camden	409
Cape May	36
Cumberland	100
Essex	2,106
Gloucester	59
Hudson	1,360
Hunterdon	60
Mercer	750
Middlesex	521
Monmouth	519
Morris	409
Ocean	101
Passaic	981
Salem	39
Somerset	228
Sussex	88
Union	917
Warren	65
Out of State	1,532
No information*	6,627

* May be in State or out of State, active or inactive

SCHOOLS OF NURSING

Fiscal Year July 1 - June 30

School year	Number of approved schools	Approved affiliate schools	Approved public health agencies	Students entering schools	Total students
1939 - 1940	45	3	7	1336	3201
1940 - 1941	45	3	7	1397	3329
1941 - 1942	45	3	7	1478	3388
1942 - 1943	44	9	6	1422	3611
1943 - 1944	44	9	6	2047	4133
1944 - 1945	42	6	2	2194	4613
1945 - 1946	42	6	2	1510	4641
1946 - 1947	42	5	2	860	3409

XI. PHARMACISTS

On May 31, 1945, there were 4,154 registered pharmacists in good standing in New Jersey. On this same date there were 1,717 pharmacies registered with the Board of Pharmacy, of which 42 were hospital pharmacies. These were staffed by an average of 1.6 registered pharmacists per pharmacy.

There is a fair distribution of pharmacies throughout New Jersey with an average of one pharmacy per 2,546 population. This compares favorably with the national average. The following table shows the distribution of pharmacies by counties:

NUMBER OF PHARMACIES BY COUNTIES

County	Number of permits in force	Hospital pharmacies and dispensaries	General population per year-round Rx pharmacy
All counties	1717	42	2546
Atlantic	62	1	2068
Bergen	152	4	2806
Burlington	31	-	3234
Camden	94	2	2873
Cape May	18	-	2410
Cumberland	19	-	3852
Essex	409	12	2142
Gloucester	19	-	3801
Hudson	288	5	2329
Hunterdon	11	1	3677
Mercer	74	3	2819
Middlesex	67	-	3240
Monmouth	88	3	2122
Morris	50	2	2619
Ocean	26	-	1714
Passaic	122	4	2644
Salem	11	-	3843
Somerset	19	1	4133
Sussex	10	-	3292
Union	135	4	2565
Warren	12	-	4182

Source: State Board of Pharmacy

Chapter developed with the cooperation of the State Board of Pharmacy and the New Jersey Pharmaceutical Association.

XII. PUBLIC HEALTH SERVICES

MUNICIPAL HEALTH DEPARTMENT FACILITIES

The official Public Health Services in New Jersey are established according to the law on local and state levels. Each of the 566 municipalities has a Board of Health or corresponding body which, theoretically at least, handles its specific local responsibilities. In nine municipalities the local Health Department is housed in a building for its exclusive use. In practically all other municipalities, having a population of 15,000 or more, office facilities are provided in buildings used also by other branches of the municipal government. Many auxiliary facilities are in service by local Health Departments for such things as infant and maternal health, tuberculosis control, venereal disease clinics, and dental and mental hygiene. Some of these are in hospital out-patient departments; many are in schools and other public buildings; a few are in quarters rented or donated for special purposes.

Grouping of Boards of Health of the smaller communities into larger population units for greater administrative efficiency has been attempted but, in the main, has not met with much permanent success. Establishment of County Health Departments in the smaller counties has been recommended, but has not yet been authorized by law.

The State Health Department has many functions, state-wide and local. One of these services consists of eight District Health Offices whose personnel act in an advisory capacity to the local health officials in the areas they cover. These areas together include about 56% of the whole population. The Bureau of Maternal and Child Health has been instrumental for many years in stimulating local interest and participation in public health nursing, with special emphasis on mothers and babies. The state laboratory provides free examination of specimens for evidence of many communicable diseases, as well as for the examination of water, milk, and some foods. Other activities of the State Health Department, which reach down more or less to the local level, are those concerned with Dental Hygiene, Venereal Diseases, Tuberculosis, Cancer, Industrial Hygiene, Negro Health, Sanitary Engineering, and Food and Drugs. The Bureau of Vital Statistics collects, tabulates, reports on, and keeps extensive records of births, marriages, and deaths, many references to which have been used in this book.

Chapter developed by State Department of Health under the general direction of William H. MacDonald and John Hall.

Several other divisions of the State Government also have a part in the health program. Chief among these are the Departments of Education, Agriculture, Labor, and Institutions and Agencies. More or less directly associated with these, and with very definite health angles to their responsibilities, are the Migratory Labor Board, the Agricultural Experiment Station, the State Board of Child Welfare, the Commissions for the Blind, Crippled Children, and Rehabilitation.

Numerous state-wide, unofficial organizations also render a vast amount of local public health services, such as the Tuberculosis League, the State Cancer Society, Red Cross, and the National Foundation for Infantile Paralysis. Many county, regional, and municipal organizations, official and voluntary, also have a part in this program. Some brief references are made to these activities in the pages which follow, especially in the sub-sections on Public Health Nursing, Visiting Nurse Associations, Tuberculosis, Cancer, Malaria, and Infantile Paralysis.

The following table by no means indicates adequately the extent of local health services in the state, but it is an indication of how the matter stands. The shortage of trained personnel in local Health Departments, especially in the rural areas, is evident. No *full-time*, licensed health officer or sanitary or food inspector is employed in any municipality in 6 counties. Somewhat over half (61%) of the population of the state is supplied with one or more licensed, *full-time* health officials employed by the municipal Health Departments. A more complete idea of the persons actually in the field can be secured by considering all the public health nurses, working for and paid by various organizations, including local Health Departments, listed by counties in this report on Page 80.

At least $1.00 per capita per year is generally agreed to be minimum for good, local, health work and it will be seen from this table that only in one county (Essex) does the total of municipal appropriations come up to this minimum standard.

MUNICIPAL HEALTH DEPARTMENT FACILITIES

By Counties

1946

County	Municipalities (Boards of Health)	Local Health Departments' Licensed Employees						Per cent of population served by full-time, licensed Health Officers and/or Sanitary and/or Food Inspectors	Appropriations (Excluding hospitals and garbage collection)	
		Full-time Health Officers		Part-time Health Officers		Sanitary and Food Inspectors (Full and part-time)	Plumbing Inspectors (Full and part time)		Total	Cents per capita
		Persons	Boards of Health served	Persons	Boards of Health served					
All counties	566	51	81	59	70	266	139	61%	$3,480,455	84
Atlantic	22	0	0	6	7	3	2	0	80,649	65
Bergen	71	9	18	14	20	23	41	52	257,839	63
Burlington	40	1	1	3	3	1	2	11	27,651	28
Camden	36	2	3	0	0	4	7	54	83,364	33
Cape May	16	1	1	2	2	1	0	16	18,580	64
Cumberland	15	0	0	4	4	4	3	3	35,283	48
Essex	22	12	12	3	3	118	22	97	1,428,162	170
Gloucester	24	0	0	0	0	2	1	0	15,236	21
Hudson	12	5	5	3	3	24	14	79	484,455	74
Hunterdon	26	0	0	0	0	0	0	0	7,225	20
Mercer	13	2	2	4	4	8	2	82	159,149	81
Middlesex	25	3	3	2	2	11	6	52	139,202	64
Monmouth	52	5	18	2	3	11	6	42	76,244	47
Morris	39	3	3	1	1	17	8	32	83,363	66
Ocean	34	0	0	0	0	1	1	0	11,250	30
Passaic	16	1	1	8	10	16	8	65	243,179	79
Salem	15	0	0	0	0	2	1	20	11,918	28
Somerset	20	0	0	2	2	3	1	0	24,710	33
Sussex	24	1	2	0	0	1	0	18	11,663	39
Union	21	6	12	3	4	15	14	80	270,733	82
Warren	23	0	0	2	2	1	0	0	10,600	21

Source: N. J. Dept. Health (From reports of Local Boards of Health for 1946)

PUBLIC HEALTH NURSING

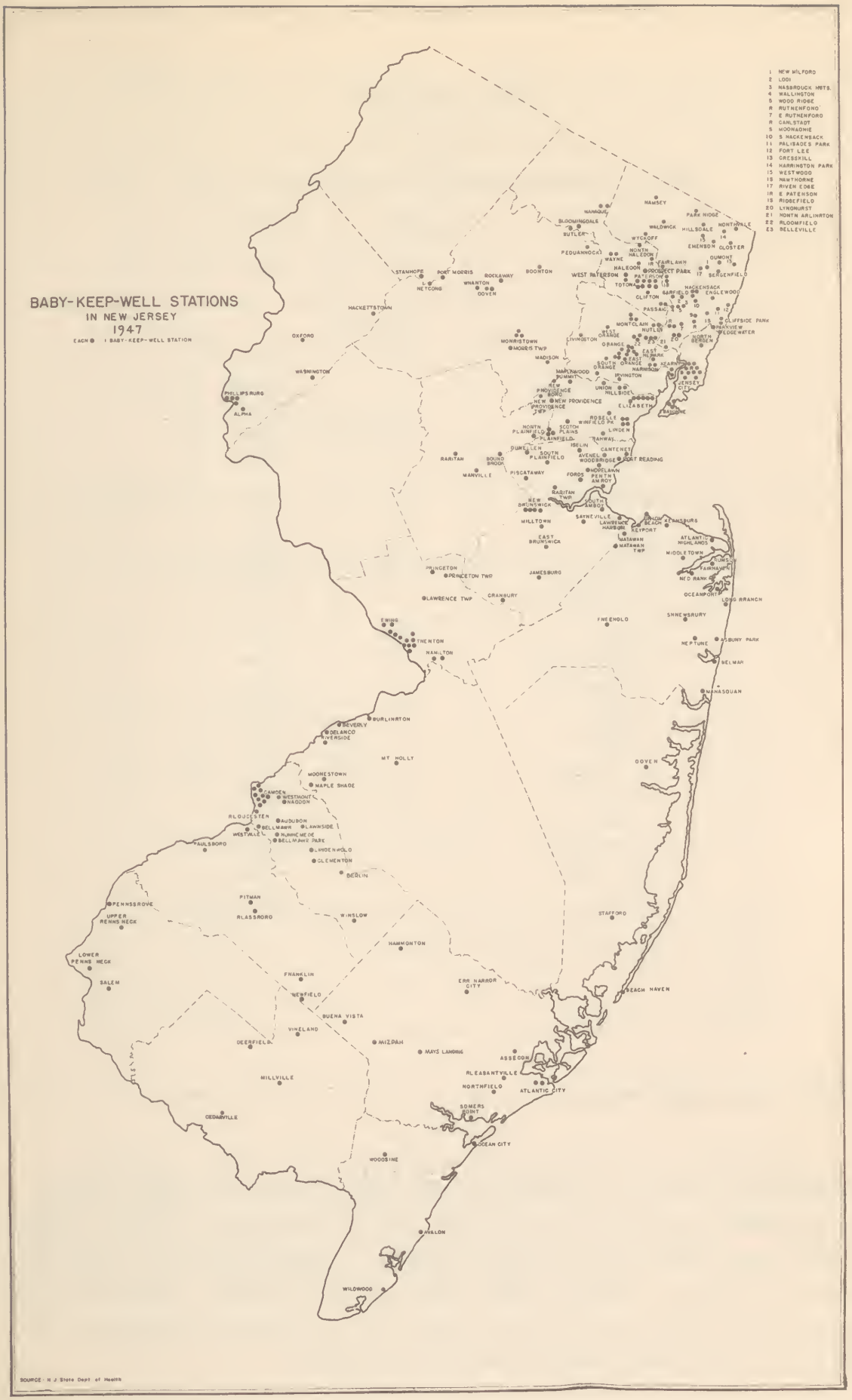
In New Jersey the public health nurse plays an important role in the prevention of disease, in the control of epidemics, in the early detection of remedial infections, in teaching sound health practices and, frequently, in the care of illness in the home.

Certain basic services are essential in any well-planned program of public health nursing. These include assistance to the health officials in the prevention and control of communicable diseases, including tuberculosis and venereal diseases; maternal and child health services; school health programs. Many communities also find that there is a need for assistance with industrial health work, crippled childrens' services, and bedside help to the chronically ill. The care of the chronic disease patient in the home has steadily increased as a community problem in direct proportion to our changes in family living and to the lengthening of the average life span.

Public health nursing services are now generally financed and administered in the following ways:

By local Health Departments and other official organizations through appropriation of public money; by community agencies on a privately financed or individual payment basis; through the medium of insurance companies and industrial concerns.

A census of nurses employed by public agencies in New Jersey has recently been completed by the State Department of Health. The result of this survey shows that 1264 such nurses were then engaged in this field as shown in the accompanying table. This number is impressive, but the figures do not always indicate a high degree of efficiency. A critical analysis of this census reveals nurses giving full time to some aspects of health work in areas where little attempt is made to cover the other aspects. Inadequate planning or lack of periodic surveys sometimes result in duplication of efforts by more than one agency.


BABY-KEEP-WELL STATIONS
IN NEW JERSEY
1947
EACH ● 1 BABY-KEEP-WELL STATION
1 NEW MILFORD
2 LODI
3 NASSBROUCK HGTS.
4 WALLINGTON
5 WOOD RIDGE
6 RUTHENFORD
7 E RUTHENFORD
8 CARLSTADT
9 MOONACHIE
10 S. HACKENSACK
11 PALISADES PARK
12 FORT LEE
13 CRESSKILL
14 HARRINGTON PARK
15 WESTWOOD
16 HAWTHORNE
17 RIVER EDGE
18 E PATERSON
19 RIDGEFIELD
20 LYNDHURST
21 NORTH ARLINGTON
22 BLOOMFIELD
23 BELLEVILLE
SOURCE: N J State Dept of Health

PUBLIC HEALTH NURSES
In New Jersey

1946

County	Number of nurses	Ratio to population
All counties	1,264	1:3291
On State level	23	
Ocean	18	1:2095
Monmouth	76	1:2122
Morris	48	1:2619
Atlantic	42	1:2954
Sussex	10	1:2963
Somerset	25	1:2976
Union	110	1:2985
Mercer	65	1:3036
Warren	16	1:3082
Burlington	31	1:3128
Bergen	129	1:3176
Gloucester	22	1:3283
Cumberland	22	1:3327
Essex	241	1:3474
Camden	71	1:3602
Middlesex	60	1:3618
Hudson	160	1:4075
Passaic	71	1:4357
Hunterdon	8	1:4596
Cape May	6	1:4820
Salem	7	1:6039

Source: N. J. Dept. Health

VISITING NURSE ASSOCIATIONS

The Hospital and Health Center Survey in New Jersey included a questionnaire for Visiting Nurse Associations. Of the 51 organizations that received the inquiries 39 filled out and returned the forms reporting that they served 287 municipalities in 16 counties. Four counties appeared to have no Visiting Nurse Association as such. However, all counties have Tuberculosis Associations some of which are branching out into more or less generalized nursing activities.

The aggregate size of this aspect of public health in the state, and something of the importance of the work done by these organizations, are indicated by the few following figures assembled from the above-mentioned reports from the 39 nursing organizations.

Professional nurses employed		264
Other personnel employed		112
Expenditures (1945)		$646,223
Salaries	$510,127	
Other costs	136,096	
Income (1945)		$608,272
Public funds	$155,498	
Other sources	452,774	

A summary of the work reported by these 39 organizations in 1945 is listed below.

	Number of patients	Number of visits
Total	41,215	314,274
Maternity ante partum	4,178	10,085
Maternity post partum	3,931	24,475
Infant care under 1 month	4,286	22,053
Infant care over 1 month	3,320	24,359
Crippled Children service	1,496	6,644
Cancer	843	10,799
Other non-communicable diseases	14,809	167,375
Venereal disease	749	3,532
Tuberculosis	1,221	8,418
Other communicable diseases	2,456	8,637
Aid in clinics		9,289
Transporting to clinics (persons)		4,750
Other service	3,926	13,858

Free visits averaged 41.4%. Bedside nursing visits averaged 46.2%

Housing facilities were reported as follows: In public buildings 12 organizations; in association-owned buildings 12 organizations; in rented space 12 organizations; in donated space 3 organizations. The total floor space is estimated as 28,800 square feet.

DENTAL SERVICES

The Dental Program of the New Jersey State Department of Health helps to provide dental treatment to children of low income families in rural and suburban areas. With the aid of state, county, and local dental health committees, representing health, welfare, and educational agencies, all programs are administered by local authorities with the financial and supervisory help of the Division of Dental Health. Local and county agencies contribute funds for the programs. As of January 1, 1947, the State Department of Health has sponsored dental treatment programs for children in 172 communities.

An attempt is made to give to each child admitted to the program all necessary extractions and fillings. During the fiscal year of 1946-1947, 5,732 children were treated. Of these, 3,934 or 69%, were given all necessary extractions and fillings.

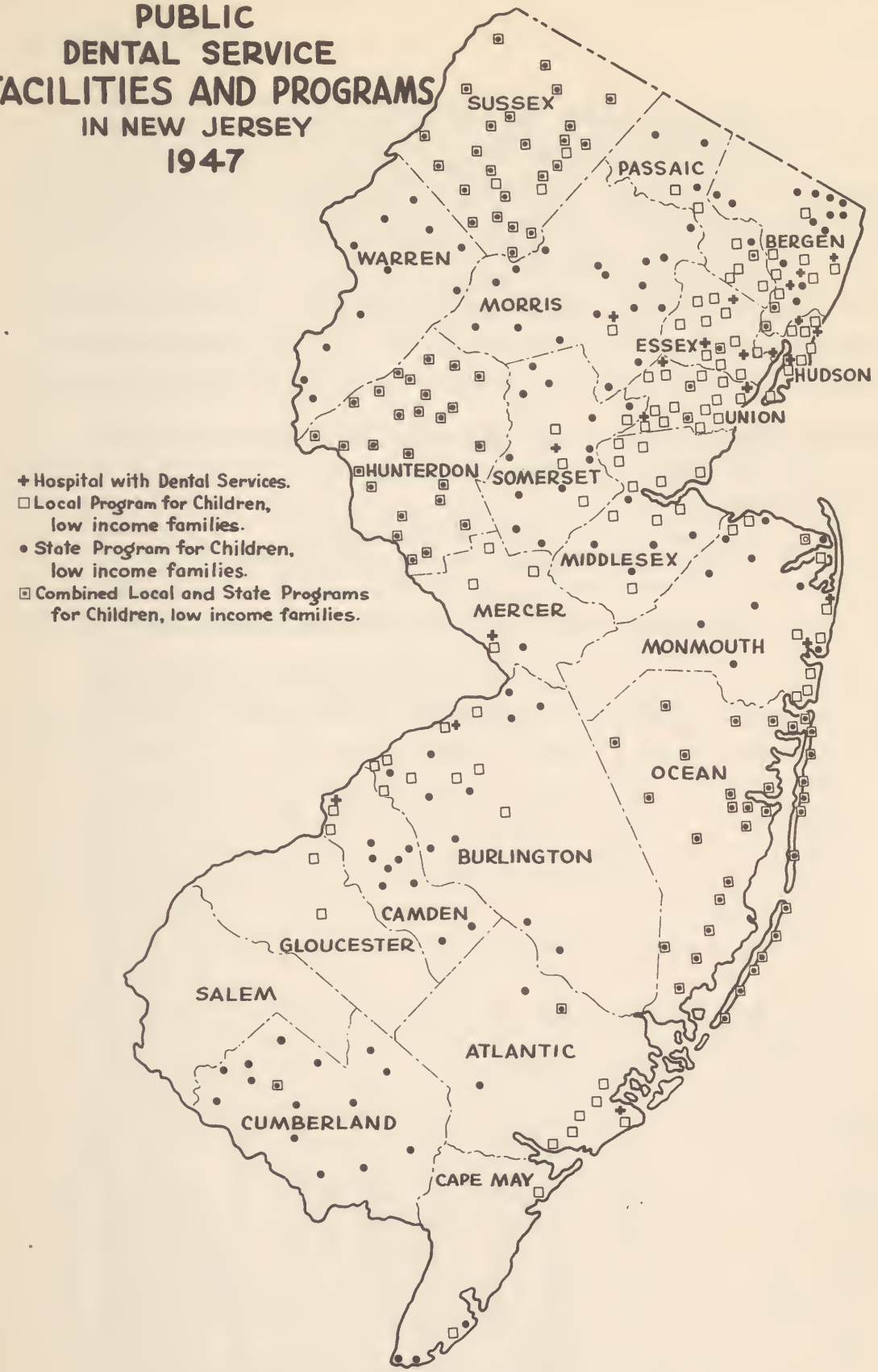
The State Department of Health employs part-time dentists who operate in private offices, clinics, dental trailers, and dental mobile clinics *(built on truck chassis)*. In two counties station wagons are used to transport children to dental centers. Three new mobile clinics will be established in Atlantic, Cape May, Gloucester, and Warren Counties during 1947. With these units in use, low income children from more than 200 communities will be provided dental treatment by the State Department of Health.

In 68 communities dental care programs for children are sponsored by Boards of Education; in 12 communities by local Boards of Health. In 6 communities programs are sponsored by Boards of Education jointly with Boards of Health. It may be estimated that approximately 60,000 children are treated in public dental care programs by such local agencies. All of the local programs provide extractions of unsavable teeth. Most of the programs provide silver amalgam, cement, and silicate fillings.

The State Department of Institutions and Agencies provides dental treatment for its wards, both dependent children and home-life children, by sending them to private offices where dental services are rendered on a fee basis.

Something of the extent of these public dental services is indicated by the map on the following page.

PUBLIC DENTAL SERVICE FACILITIES AND PROGRAMS IN NEW JERSEY 1947



Source : N.J. Dept. Health

LABORATORIES

The State Health Department has recently issued a revised list of 106 laboratories authorized to make tests of various kinds. In addition they have prepared a statement of references to existing laws and Sanitary Code regulations relative to laboratory services in New Jersey. The three general types of work authorized are:

Examination for certain communicable diseases	89 laboratories
Pneumonia typing (Very little call for this now)	55 laboratories
Blood testing for evidence of syphilis	91 laboratories

As of January 1, 1947 the approved laboratories were classified and grouped as indicated below:

LABORATORIES IN NEW JERSEY AUTHORIZED BY
STATE HEALTH DEPARTMENT TO MAKE CERTAIN TESTS

1947

County	Total	Laboratories operated by			
		Hospitals	Health Dept.	County	Private
All counties	106	55	12	2	37
Atlantic	5	2	0	0	3
Bergen	6	3	0	1	2
Burlington	2	2	0	0	0
Camden	4	2	1	0	1
Cape May	1	0	0	0	1
Cumberland	2	2	0	0	0
Essex	27	14	5	0	8
Gloucester	1	1	0	0	0
Hudson	13	8	0	1	4
Hunterdon	0	0	0	0	0
Mercer	6	3	1	0	2
Middlesex	6	3	1	0	2
Monmouth	3	2	0	0	1
Morris	4	3	1	0	0
Ocean	2	2	0	0	0
Passaic	14	5	1	0	8
Salem	0	0	0	0	0
Somerset	0	0	0	0	0
Sussex	0	0	0	0	0
Union	10	3	2	0	5
Warren	0	0	0	0	0

Source: N. J. Dept. Health

INDUSTRIAL HYGIENE

The primary functions of the Division of Adult and Industrial Health of the State Department of Health are to promote and develop in industry in-plant medical facilities, personnel adequate for the care of injuries, and the development of good industrial public health practices. This would include pre-placement and periodic examinations of all employees and special examinations of those exposed to potentially toxic materials. It would also include the development of the Medical Department as the center of other public health measures in industry such as venereal disease control, tuberculosis control, and the like.

The Division also carries on extensive evaluation, through medical, nursing, and engineering personnel, of suspected toxic industrial exposures wherein the health of the individuals exposed might be permanently affected.

The Division also acts as a clearing house of all public health programs which can be applied industrially, such as the tuberculosis control, venereal disease control, dental health, and the like.

The Division of Adult Industrial Health, in cooperation with local health offices, has completed seven industrial health surveys in various New Jersey communities. These surveys evaluate the environmental conditions and the medical services and facilities in industries. Along with this, studies of community welfare facilities are made. All this is followed by an attempt to coordinate the community facilities and industrial needs so that better health programs are made available to the industrial population.

MEDICAL AND NURSING PERSONNEL IN INDUSTRIAL PLANTS IN NEW JERSEY

1945

Size of plants (Employees)	Number of plants	Plants with doctors			Plants with nurses		
		Full time	Part time	On call or none	Full time	Part time	None
Total	1238	46	128	1064	349	15	874
1 - 100	396	0	2	394	4	0	392
101 - 250	405	2	20	383	46	6	353
251 - 500	195	2	27	166	96	6	93
501 - 1000	118	6	33	79	95	2	21
1000 - 5000	98	21	40	37	86	1	11
5000 and over	20	15	5	0	20	0	0
Not given	6	0	1	5	2	0	4

Source: N. J. Dept. Health

COMMUNICABLE DISEASES

SOME COMMUNICABLE DISEASES IN NEW JERSEY
Cases and Deaths Reported

Averages 5 Years 1940 - 1945; 1 Year 1946

Disease	1941 - 1945		1946	
	Average cases	Average deaths	Cases	Deaths
Measles	28,119	14	56,421	27
Chickenpox	20,628	3	16,529	2
Mumps	12,241	2	9,209	0
Syphilis	10,453	399	9,881	276
Whooping cough	7,425	30	7,040	27
Gonorrhea	5,452	14	6,969	10
Scarlet fever	5,319	9	4,231	5
Pneumonia	4,481	1831	4,239	1438
Tuberculosis	3,649	1836	3,618	1643
Influenza	1,574	217	407	102
Malaria	458	2	931	2
Infantile paralysis	438	43	257	24
Cerebro spinal meningitis	418	69	184	40
Diphtheria	179	7	249	13
Typhoid fever	79	7	58	3
Undulant fever	65	0	56	1
Trichinosis	32	1	19	1
Rabies (Human)	1	1	2	2

Source: N. J. Dept. Health

DEATHS IN NEW JERSEY FROM PRINCIPAL COMMUNICABLE DISEASES
Death Rates Per 100,000 Population

Year	Typhoid fever	Scarlet fever	Whooping cough	Diphtheria	Malaria	Influenza	Measles
1910	15.4	9.0	15.3	28.6	0.98	4.2	7.3
1915	7.2	3.5	9.0	19.3	0.52	8.5	7.1
1920	3.2	3.2	12.4	17.9	0.15	37.2	9.4
1925	3.1	1.9	7.0	9.3	0.08	11.6	3.4
1930	1.1	1.4	2.2	8.1	0.09	8.6	3.1
1935	0.5	0.6	2.3	1.1	0.14	9.2	1.3
1940	0.3	0.4	0.6	0.6	0.00	4.2	0.2
1945	0.2	0.1	0.6	0.1	0.07	3.3	0.1

Source: N. J. Dept. Health

VENEREAL DISEASES

How much venereal disease exists in New Jersey and how many new cases occur each year are not known with any great degree of accuracy. Inquiries have been made about syphilis in various ways, such as by studying the records of hospitals where blood tests are routine, by following carefully the evidence furnished by the prenatal and premarital laws, and by examining the military records of draftees. It appears from these sources that about 1% of young white adults have syphilis at any given time, with a higher percentage among Negroes. There is a definite downward trend in congenital syphilis and in deaths at all ages.

Gonorrhea is supposed to be several times as prevalent as syphilis, but neglect and self-treatment, together with incomplete reporting of cases by physicians, makes statistical knowledge about the subject very uncertain indeed.

The new drugs, especially penicillin, have very radically changed the problem of venereal disease. Whereas syphilis and gonorrhea used to be chronic, lasting for years even with good treatment, now most cases can be quickly cured, the former (early syphilis) in a few days and the latter in a matter of hours. The rapid treatment of syphilis has a definite connection with the subject of hospitals. Instead of having one or more places where this treatment was the sole business, as in most other states, a plan was put into effect in New Jersey during the war whereby 47 general hospitals agreed to treat early cases of syphilis at the authorization and expense of the State Department of Health. The hospitals keep the patients five or six days during which 2,400,000 units of penicillin are given as standard treatment. During 1945 there were 832 persons so treated and, in 1946, the number was 2249.

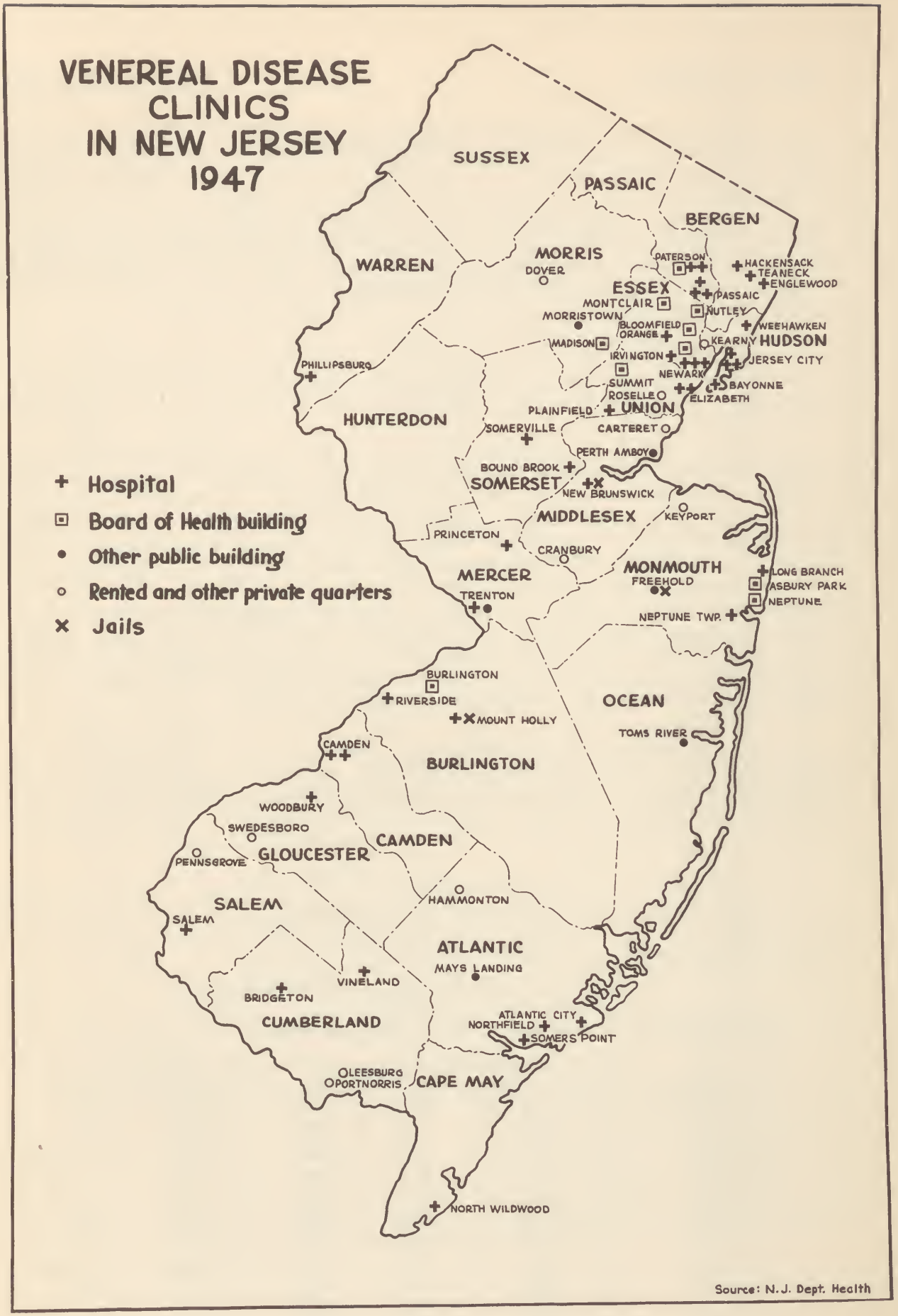
The fact that venereal disease continues to be a serious problem is indicated by the number of cases and deaths reported and set forth in the following table. There is little evidence from this source that the new treatments are reducing the incidence or prevalence of these diseases. These figures indicate only a part of the problem, how big a part we do not know.

Seventy-two clinics are in service in the state at the places indicated on the accompanying map. These are now largely for diagnosis, but treatment of gonorrhea, and of the old cases of syphilis that are still undergoing the arsenic and bismuth therapy, is still being continued.

SYPHILIS AND GONORRHEA CASES AND DEATHS REPORTED
1936 - 1946

Year	Syphilis			Gonorrhea	
	Total cases	Early cases	Deaths	Total cases	Deaths
1936	6,504		350	2,996	21
1937	8,282		351	3,333	23
1938	10,944		395	3,221	20
1939	11,612		376	2,962	17
1940	10,900	1,212	467	3,066	9
1941	11,708	1,243	446	4,476	15
1942	13,046	1,336	422	6,183	14
1943	9,955	1,271	444	5,346	15
1944	8,660	1,318	396	5,346	13
1945	8,898	1,317	287	5,907	13
1946	9,881	2,010	276	6,969	10

Source: N. J. Dept. Health



Source: N.J. Dept. Health

TUBERCULOSIS

Tuberculosis, as one of the major communicable diseases, is attacked by the entire Health Department and particularly through its Division of Tuberculosis Control. Morbidity and mortality data are assembled and implemented for use at the State Office.

The Division of Tuberculosis Control has a very active case-finding program. The photofluorograph has provided a powerful weapon when applied by mass techniques. This mass X-ray program is carried on among individual groups, both large and small, institutional groups, and community groups with particular emphasis on segments of society that are known to have more than their proportionate share of tuberculosis. The Division of Tuberculosis Control does all the surveying but many other divisions of the State Department of Health, and many other agencies and persons, participate not only in the organizational work but in the follow-up.

To carry out the case-finding effort which, to date, has serviced approximately 225,000 persons, the Division of Tuberculosis Control makes use of one mobile x-ray laboratory and three transportable photofluorographic units. The former is a sixty foot tractor trailer unit equipped with a 70 mm. photofluorograph, a complete dark room, six dressing booths and its own generator. light, and running water. The transportable units are moved from location to location about the State in three one and one-half ton trucks. Negative findings are reported, in most instances, directly to the individual. Positive findings are reported to the private physician named by the individual. All records are confidential.

The Division is also cooperating with local groups in the establishment of better diagnostic facilities throughout the State. The funds for equipment are supplied by the Division of Tuberculosis Control, whereas the organization of the clinic and its administration is left in the hands of health workers in the local community. Thus far five such clinics are already in operation and plans have been made for the establishment of at least six more. As the case-finding program increases, it becomes apparent that the establishment of these clinics is most essential. If we are to find many new and unchecked cases of the disease, adequate and sufficient clinical facilities must be available to local physicians.

There is also a consultant in tuberculosis public health nursing and her assistants in the Division. These persons, it is expected, will develop, promote and, in part, supervise the essential public health nursing services on tuberculosis throughout the State. Many of these services are provided through the Tuberculosis Leagues. The nurse-consultants coordinate these services with the total program.

RABIES

The fact that rabies is a potentially serious matter is indicated by the number of cases in animals (mostly dogs) reported each year, shown in the accompanying table. Dog bites run into sizeable numbers also, 14,167 being reported to the State Health Department, by local Boards of Health, in 1946.

Relatively few persons get rabies, for which there is as yet no cure. This is probably due to a realization on the part of the public of the importance of immediate treatment by a physician of all bites and of the value of the anti-rabic inoculations in cases where there is any suspicion that the animal might be mad. Local Boards of Health are required by law to give this treatment free to persons unable to pay. The State Health Department supplies most of the serum and, during 1946, withdrawal reports from local stations indicated that 370 persons were treated with material costing $2,456.80.

RABIES IN NEW JERSEY

1932 - 1946

Year	Human		Animals
	Cases	Deaths	cases
1932	2	3	222
1933	0	0	283
1934	0	0	207
1935	1	1	133
1936	1	1	195
1937	1	1	105
1938	2	2	573
1939	2	2	679
1940	4	4	416
1941	1	1	308
1942	0	0	187
1943	0	0	42
1944	2	2	68
1945	0	0	51
1946	2	2	274

Source: N. J. Dept. Health

MALARIA AND MOSQUITO CONTROL

Malaria used to be one of the most serious public health problems in New Jersey. In 1881 there were 431 deaths reported. Since then the decline has been continuous until, as shown on the table on page 86, there have been only an average of 2 deaths per year since 1941.

A rapid increase in cases reported has occurred in the last few years, due almost entirely to men returning from the war. It was at first feared that these persons might be the source of more locally acquired cases, but such has not been the case. In 1946 only 6 cases, apparently infected in New Jersey, were reported out of a total of 931.

An aggressive mosquito control program for many years has probably been the main reason for the decline of malaria, as well as for the elimination in many areas of what had formerly been an almost state-wide pest. The County Mosquito Control Commissions have done a great deal of work and the money made available to them from public sources runs into sizeable figures, as shown by the appropriations in 1946, listed in this table.

APPROPRIATIONS FOR COUNTY MOSQUITO CONTROL
1946

County	Appropriation
All counties	$515,071
Atlantic	28,965
Bergen	50,000
Burlington	9,600
Cape May	12,694
Essex	124,348
Hudson	84,905
Mercer	10,250
Middlesex	23,854
Monmouth	26,500
Morris	26,194
Ocean	15,000
Passaic	30,000
Somerset	11,581
Sussex	1,000
Union	60,180

Source: N. J. Agricultural Experiment Station

INFANTILE PARALYSIS

The 21 county chapters of the National Foundation for Infantile Paralysis in New Jersey annually join the nation in its "March of Dimes" Campaign, proceeds of which are used to provide medical care to the victims of Infantile Paralysis regardless of age, race, creed, or color.

In addition to their fundamental work, mentioned above, the New Jersey Chapters have contributed $2500 toward the cost of the state-wide study of child health services now being conducted by the American Academy of Pediatrics. The state study is a part of a nation-wide two-year survey to determine and evaluate the extent of existing child health services. The results of this survey will be of value to the National Foundation for Infantile Paralysis and its chapters in their effort to improve local facilities for the medical care of infantile paralysis patients, most of whom are children.

As part of the epidemic preparedness program, distribution of 618,000 leaflets listing precautions against polio has been made in schools throughout New Jersey in cooperation with state and local education authorities. Distribution of the leaflet, "A Message to Parents About Infantile Paralysis", is part of a nation-wide plan to present facts about the disease to allay fears and furnish reassurance to parents in the event of infantile paralysis outbreaks.

Also, as part of the epidemic preparedness program, a state-wide survey of equipment *(respirators, hot-pack machines, etc.)* was taken in an attempt to ascertain the location, condition, and quantity of equipment in New Jersey.

HEART DISEASE

There is some talk of a state organization which will devote its efforts to the heart disease field, possibly being affiliated with the American Heart Association. Something is being done locally by the Passaic County Tuberculosis and Health Association, and also by several interested organizations in Bergen and Essex Counties. Estimates by the State Department of Education of 11,500 heart cases in the public schools *(8600 rheumatic and 2900 congenital)* indicate the need for such a program among children. The Crippled Children's Commission, with its voluntary auxiliaries, is largely concerned with the end products of early rheumatic heart disease.

CANCER - AMERICAN CANCER SOCIETY, NEW JERSEY DIVISION, INC.

Providing funds for improvement of services in cancer clinics of 34 general hospitals in 16 counties of New Jersey, for permanent equipment, the establishment of county-wide gold radon seed pools for treatment of indigent patients in several counties, and for subsidization of visiting nurse fees for bedside nursing care of cancer patients, the *New Jersey Division, American Cancer Society,* has allocated $304,986.46 since September 1, 1946, from funds contributed in 1946.

Other clinic projects are now being considered.

In addition to clinic projects, the Division's medical program has been directed toward early diagnosis. Publicity continually urged the people to receive periodic, complete physical examinations from their family physician. To cooperate with the physician, the biopsy program has been devised under joint sponsorship of the Medical Society of New Jersey, the Society of Clinical Pathologists, and the American Cancer Society. Thirteen hundred physicians have requested and received 6,000 biopsy containers prepared for use.

As the result of a survey 2,000 New Jersey physicians have signified their willingness to conduct complete physical examinations thus making this important cancer control measure available to New Jersey citizens through their family doctors. A complete list of physicians, who have signified their willingness to conduct health maintenance examinations, is being prepared for publication. This list will be especially helpful to persons who have no regular family physician in attendance.

CANCER - STATE HEALTH DEPARTMENT

The recently organized *Division of Cancer Control* in the *State Health Department* has plans for a Tumor Registry under joint auspices with the New Jersey Society of Clinical Pathologists. The Division is also collecting and filing cancer case histories, tissue slides, gross pathological specimens, photographs of pathological material, outlines of treatment, a system of follow-up, library facilities, and other data relative to tumors. Emphasis is being put on the various aspects of statistical research and professional education.

HEALTH SERVICES IN PUBLIC SCHOOLS

A part of the Hospital and Health Center Survey (1945) consisted of a questionnaire sent by the State Department of Education to the 1800 public schools in the State in which there are approximately 650,000 pupils. Some or all of the information requested was returned from 1206 schools and gives a good cross-section of their health activities. A summary of the answers is given here, which covers the following:

296,074 pupils in 994 elementary schools
172,443 pupils in 212 high schools
468,517 pupils in 1206 schools

The law requires all schools to have physicians. Of the 1206 schools reporting, 1145 employed 591 physicians, most of whom are on part time.

The law does not require employment of nurses but, of the 1206 schools reporting, 1149 had service from 664 individual nurses.

Nurses employed by local Boards of Education. 430
Nurses employed by local Boards of Health.... 167
Nurses employed by other agencies..... 67

Dentist employed at.....	275 schools	(23%)
Adequate dental service available at..	574 schools	(48%)
Special room for health services at...	893 schools	(74%)
Hand washing facilities in health room.	665 schools	(55%)
Sterilizer for emergencies and immunizations at	484 schools	(40%)
Scales to weigh pupils at	864 schools	(72%)
All pupils physically examined annually at 1015	schools	(84%)
10 minutes or more for each physical examination at.....	438 schools	(36%)

The law allows local Board of Education to require vaccination against smallpox and immunization against diphtheria.

100% of pupils reported vaccinated at 759 schools (63%)
100% of pupils reported immunized at 410 schools (34%)

Eye tests given at	613 schools	(51%)
Hearing tests at	378 schools	(31%)
Mental hygiene consulting service at..	474 schools	(39%)
X-ray consulting service at	505 schools	(42%)
Heart consulting service at	419 schools	(35%)

It is estimated that there are 11,500 heart cases in the schools (1.75%). Of these 8600 are rheumatic (1.32%), and 2900 are congenital (0.43%).

Physical Education -

Ten questions dealt with athletics, gymnasiums, swimming pools, showers, time devoted to the programs, and so forth.

Health Instruction -

More than 30 minutes weekly devoted to Health Education at 537 schools (45%)
Less than 30 minutes weekly devoted to Health Education at 263 schools (22%)
No report . . . . . at 406 schools (33%)

PUBLIC SCHOOL HEALTH EXPENDITURES

(1944 - 1945)

MEDICAL INSPECTION		NURSE SERVICE	
Salaries	$452,363	Salaries	$901,888
Expenses	42,083	Expenses	33,112

DENTAL INSPECTION		OTHER SERVICES	
Salaries	$155,136	Salaries	$121,297
Expenses	20,445	Expenses	63,244

Total $1,789,568

XIII. POPULATION STATISTICS

TREND IN GENERAL STATE POPULATION

In the last two United States census decades - 1930 and 1940 - New Jersey's general population has been around the four million mark, having shown marked growth in the previous three decades.

GENERAL POPULATION IN NEW JERSEY

1890 - 1940

Census year	General population	Increase over preceding census	
		Number	Per cent
1940	4,160,165	118,831	2.9%
1930	4,041,334	885,434	28.1
1920	3,155,900	618,733	24.4
1910	2,537,167	653,498	34.7
1900	1,883,669	438,736	30.4
1890	1,444,933	313,817	27.7

Source: U. S. Census Bureau

ESTIMATED GENERAL POPULATION IN NEW JERSEY

1940 - 1945

	General population
July 1, 1945	4,104,176
July 1, 1944	4,065,316
July 1, 1943	4,102,148
July 1, 1942	4,216,098
July 1, 1941	4,183,069
July 1, 1940	4,162,101

Source: U. S. Census Bureau

Chapter developed with the cooperation of the Bureau of Planning, State Department of Economic Development.

COUNTY POPULATION

The county population of New Jersey for the census years 1940 and 1930 arranged by size, for the census year 1940 is depicted in the following table:

GENERAL POPULATION IN NEW JERSEY
By Counties

1930 and 1940

County	General population-1930	General population - 1940	
		Number	Per cent
All counties	4,041,334	4,160,165	100.0%
Essex	833,513	837,340	20.1
Hudson	690,730	652,040	15.7
Bergen	364,977	409,646	9.8
Union	305,209	328,344	7.9
Passaic	302,129	309,353	7.4
Camden	252,312	255,727	6.1
Middlesex	212,208	217,077	5.2
Mercer	187,143	197,318	4.7
Monmouth	147,209	161,238	3.9
Morris	110,445	125,732	3.0
Atlantic	124,823	124,066	3.0
Burlington	93,541	97,013	2.4
Somerset	65,132	74,390	1.9
Cumberland	69,895	73,184	1.8
Gloucester	70,802	72,219	1.7
Warren	49,319	50,181	1.2
Salem	36,834	42,274	1.0
Ocean	33,069	37,706	0.9
Hunterdon	34,728	36,766	0.9
Sussex	27,830	29,632	0.7
Cape May	29,486	28,919	0.7

Source: U. S. Census Bureau

CHANGES IN AGE DISTRIBUTION

Decided shiftings in the age distribution of the general population that have taken place during the last forty years may be noted in the following table:

GENERAL POPULATION IN NEW JERSEY

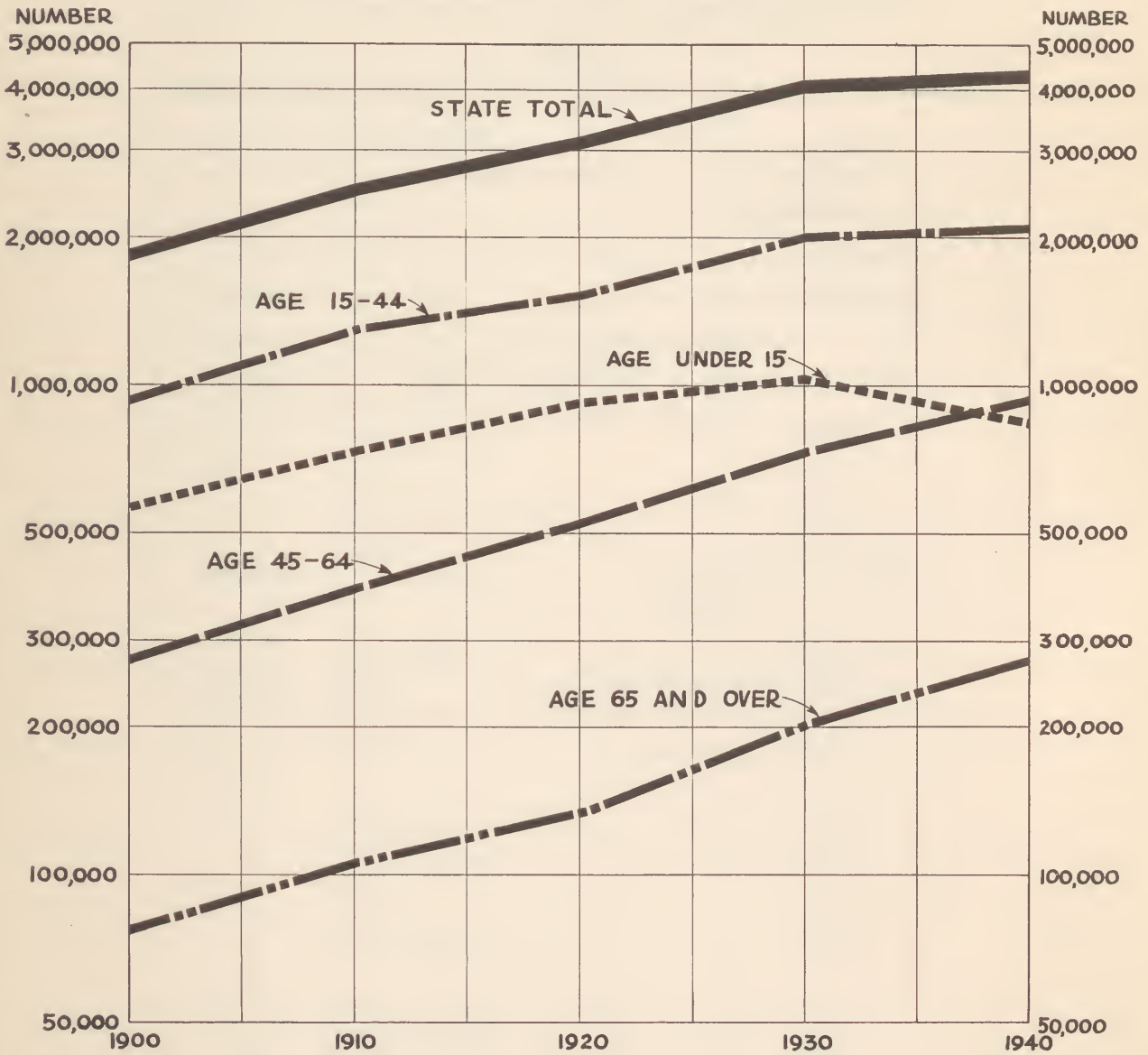
By Age

1900 - 1940

Age	1900	1910	1920	1930	1940
			NUMBER		
Total	1,879,890	2,534,411	3,153,339	4,038,630	4,160,165
Under 15 years	577,518	737,916	952,890	1,094,928	874,762
15 - 44 years	942,251	1,302,693	1,534,927	2,009,033	2,092,771
45 - 64 years	280,504	386,715	532,041	733,626	913,811
65 years and over	79,617	107,087	133,481	201,043	278,821
			PER CENT		
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Under 15 years	30.7	29.1	30.2	27.1	21.0
15 - 44 years	50.1	51.4	48.7	49.7	50.3
45 - 64 years	14.9	15.3	16.9	18.2	22.0
65 years and over	4.3	4.2	4.2	5.0	6.7

Source: U. S. Census Bureau

NEW JERSEY POPULATION BY AGE
1900-1940



Source : U.S. Census

POPULATION BY MUNICIPALITIES

Nearly thirty per cent of New Jersey's general population is found in the 6 cities of over 100,000 and an additional twenty-four per cent in the 23 cities having a population of from 25,000 to 100,000.

POPULATION IN GROUPS OF PLACES CLASSIFIED ACCORDING TO SIZE, AND IN RURAL TERRITORY, FOR NEW JERSEY

1940

Class	Number of places	Population
Urban Territory:		
Places of 100,000 or more	6	1,222,734
Places of 25,000 to 100,000	23	992,350
Places of 10,000 to 25,000	40	601,872
Places of 5,000 to 10,000	53	380,281
Places of 2,500 to 5,000	56	197,536
Rural Territory:		
Incorporated places of 1,000 to 2,500	84	143,840
Incorporated places under 1,000	83	42,260
Unincorporated territory		579,292

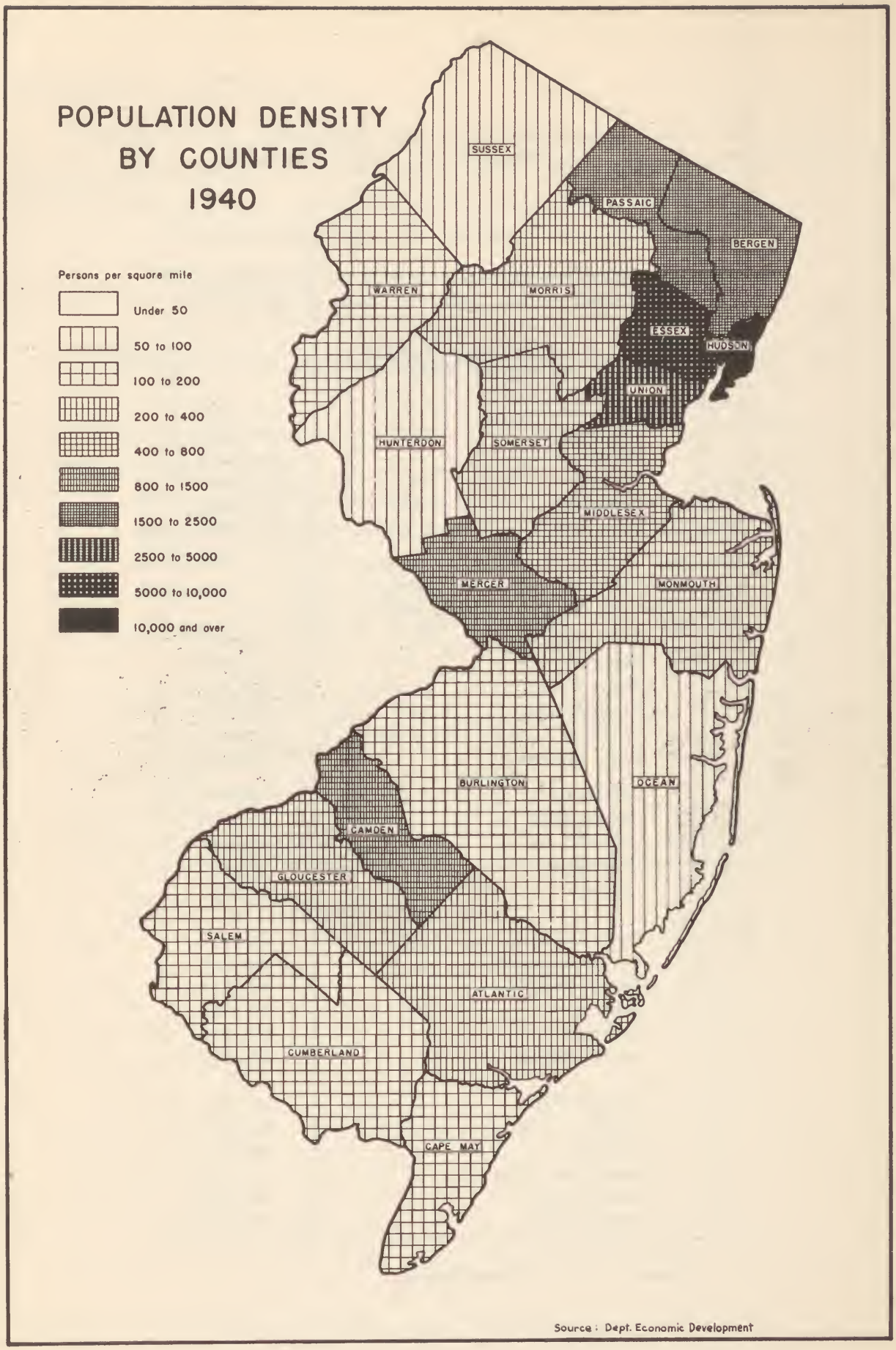
Source: U. S. Census Bureau

GENERAL POPULATION OF NEW JERSEY
BY CITIES OF 25,000 - 100,000 POPULATION,

1940

Class and name	General population
Cities with general population of 100,000 or more:	
Camden	117,536
Elizabeth	109,912
Jersey City	301,173
Newark	429,760
Paterson	139,656
Trenton	124,697
Cities with general population of 25,000 to 100,000:	
Atlantic City	64,094
Bayonne	79,198
Belleville	28,167
Bloomfield	41,623
Clifton	48,827
East Orange	68,945
Garfield	28,044
Hackensack	26,279
Hoboken	50,115
Irvington	55,328
Kearny	39,467
Montclair	39,807
New Brunswick	33,180
North Bergen	39,714
Orange	35,717
Passaic	61,394
Perth Amboy	41,242
Plainfield	37,469
Teaneck (Twp.)	25,275
Union	56,173
West New York	39,439
West Orange	25,662
Woodbridge	27,191

Source: U. S. Census Bureau


POPULATION DENSITY
BY COUNTIES
1940
Persons per squore mile
Under 50
50 to 100
100 to 200
200 to 400
400 to 800
800 to 1500
1500 to 2500
2500 to 5000
5000 to 10,000
10,000 and over
SUSSEX
PASSAIC
BERGEN
WARREN
MORRIS
ESSEX
HUDSON
UNION
HUNTERDON
SOMERSET
MIDDLESEX
MERCER
MONMOUTH
BURLINGTON
OCEAN
CAMDEN
GLOUCESTER
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY
Source: Dept. Economic Development

POPULATION DENSITY

It will be of decided interest to note in this connection the enormous disparities in the density of the general population in the 21 counties of New Jersey.

With an overall density of 553.1 people per square mile for the State, the population density ratio is as low as 56.1 people per square mile in Sussex County to reach a density of 14,489.8 people per square mile in Hudson County.

POPULATION DENSITY

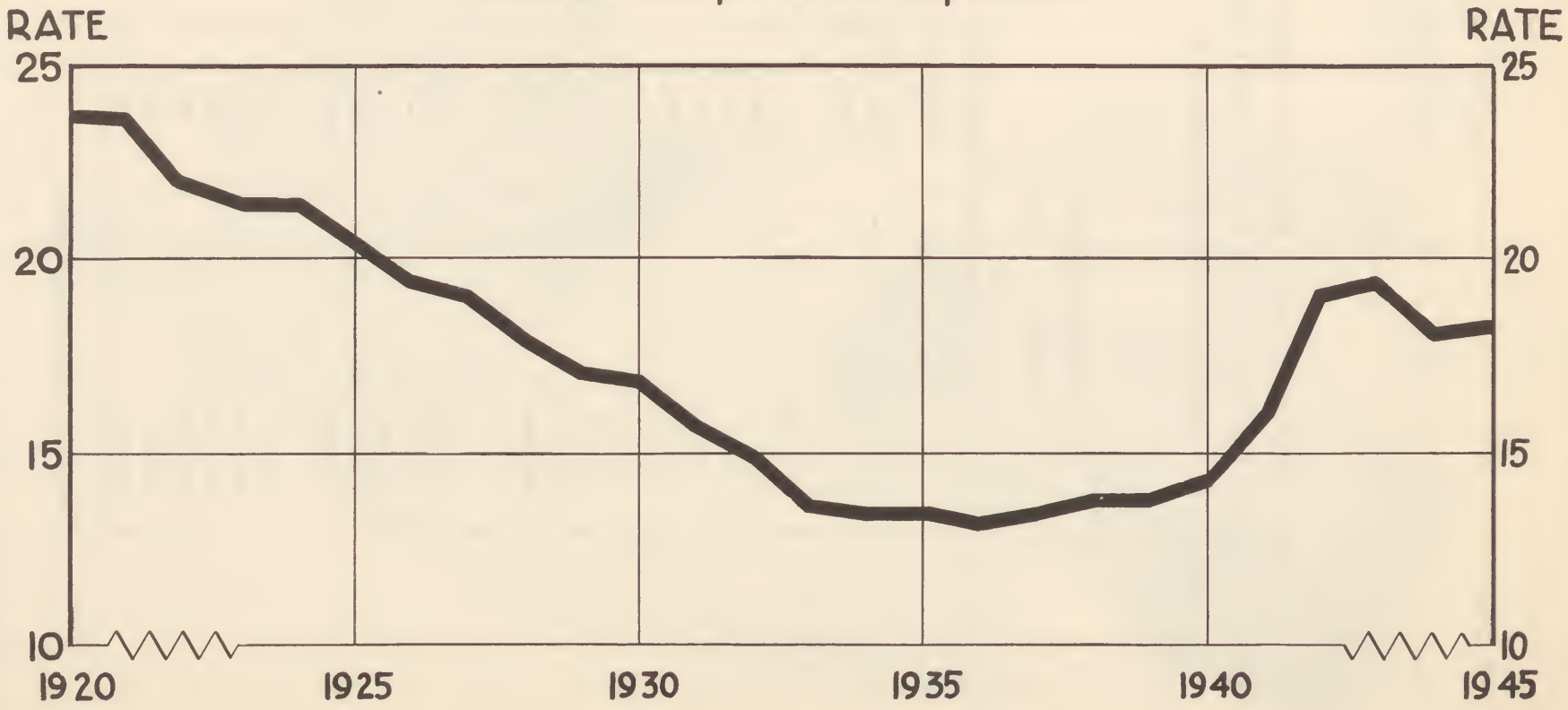
By Counties, in New Jersey

1940

County	Population per square mile
All counties	553.1
Hudson	14,489.8
Essex	6,541.7
Union	3,187.8
Bergen	1,758.1
Passaic	1,594.6
Camden	1,157.1
Mercer	865.4
Middlesex	695.8
Monmouth	338.0
Morris	268.7
Somerset	242.3
Gloucester	219.5
Atlantic	215.8
Cumberland	145.5
Warren	139.0
Salem	120.8
Burlington	118.5
Cape May	108.3
Hunterdon	84.5
Ocean	59.0
Sussex	56.1

Source: U. S. Census Bureau

BIRTHS IN NEW JERSEY
1920-1945
Crude Rates per 1000 Population



Source : N.J. Dept. Health

XIV. VITAL STATISTICS

STATE SUMMARY:

BIRTHS, MARRIAGES AND DEATHS IN NEW JERSEY

1900 - 1946

Year	NUMBER		
	Births	Marriages	Deaths
1900	32,270	14,611	31,474
1905	39,689	20,572	33,864
1910	53,942	27,912	39,494
1915	66,476	27,694	39,435
1920	76,431	31,327	40,820
1925	74,193	27,672	41,749
1930	68,282	28,499	43,190
1935	55,059	29,724	43,267
1940	59,328	41,059	45,206
1941	67,104	46,538	45,971
1942	80,812	50,498	46,270
1943	82,356	41,045	49,781
1944	75,652	36,084	47,340
1945	76,995	39,711	47,633
1946	95,044	61,020	46,261

Source: N. J. Dept. Health

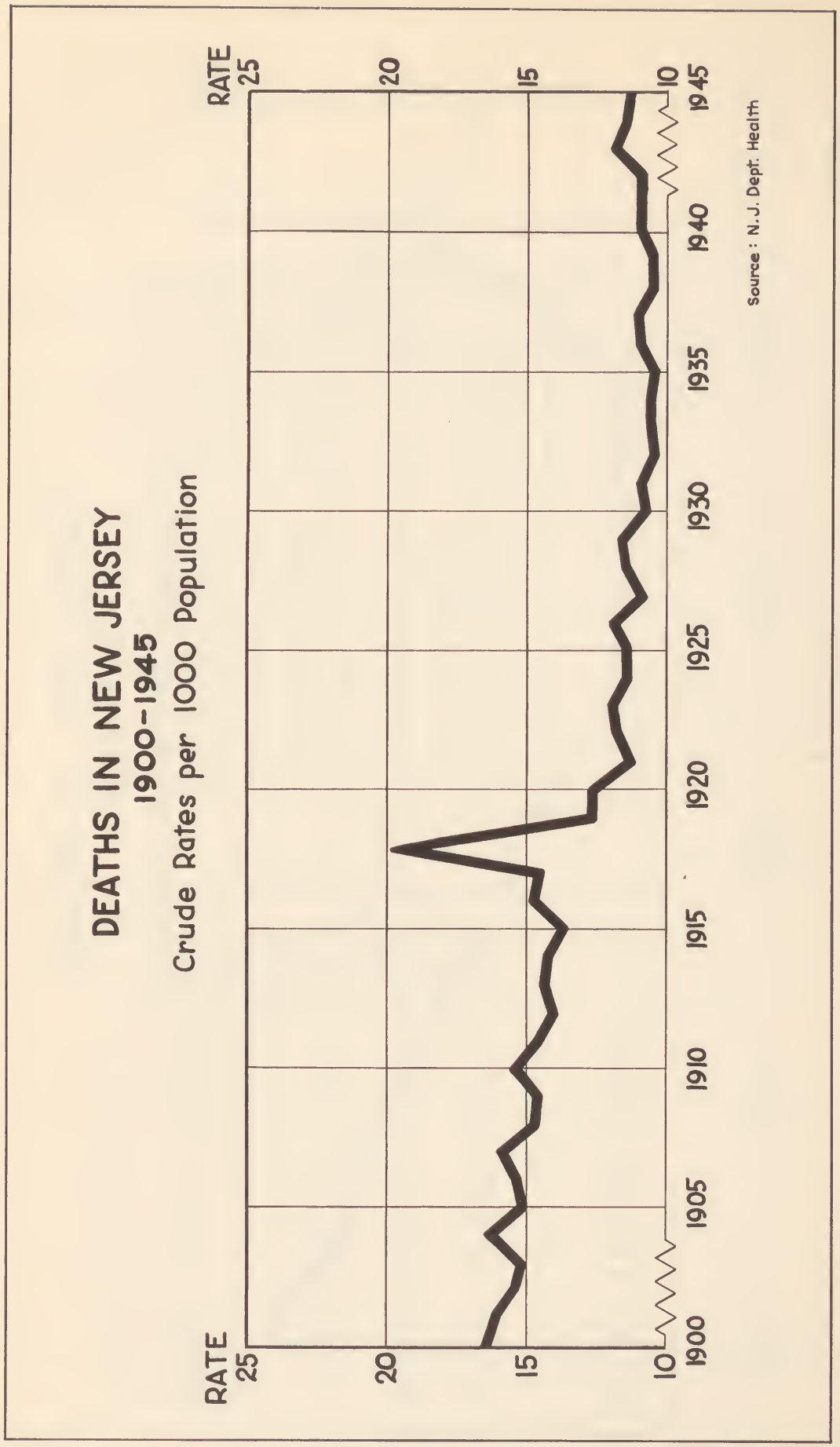
RATES OF BIRTHS, MARRIAGES AND DEATHS IN NEW JERSEY

1900 - 1945

Year	RATE PER 1000 GENERAL POPULATION		
	Births	Marriages	Deaths
1900	17.0	7.7	16.6
1905	17.8	9.2	15.2
1910	21.1	10.9	15.4
1915	23.1	9.6	13.7
1920	23.8	9.7	12.7
1925	20.4	7.6	11.4
1930	16.9	7.0	10.7
1935	13.4	7.2	10.5
1940	14.3	9.9	10.9
1941	16.0	11.1	10.9
1942	19.1	11.9	10.9
1943	19.4	9.7	11.8
1944	18.2	8.7	11.4
1945	18.3	9.5	11.3

Source: N. J. Dept. Health

Chapter developed with the cooperation of the Bureau of Vital Statistics, State Health Department


DEATHS IN NEW JERSEY
1900-1945
Crude Rates per 1000 Population
RATE
25
20
15
10
1900
1905
1910
1915
1920
1925
1930
1935
1940
1945
Source : N.J. Dept. Health

BIRTHS, MARRIAGES AND DEATHS, BY COUNTIES, IN NEW JERSEY

1946

County	NUMBER		
	Births	Marriages	Deaths
All counties	95,044	61,020	46,269
Atlantic	2,406	1,954	1,722
Bergen	9,496	5,466	4,118
Burlington	2,326	1,453	1,154
Camden	6,142	3,798	2,914
Cape May	613	411	474
Cumberland	1,785	944	913
Essex	18,487	12,595	9,296
Gloucester	1,780	982	817
Hudson	13,815	10,427	7,034
Hunterdon	656	444	416
Mercer	4,558	2,939	2,223
Middlesex	5,187	3,475	2,141
Monmouth	4,153	2,416	2,296
Morris	2,974	1,591	1,376
Ocean	983	631	578
Passaic	6,569	4,754	3,229
Salem	1,195	436	463
Somerset	1,833	978	768
Sussex	808	398	374
Union	8,158	4,281	3,355
Warren	1,120	647	608

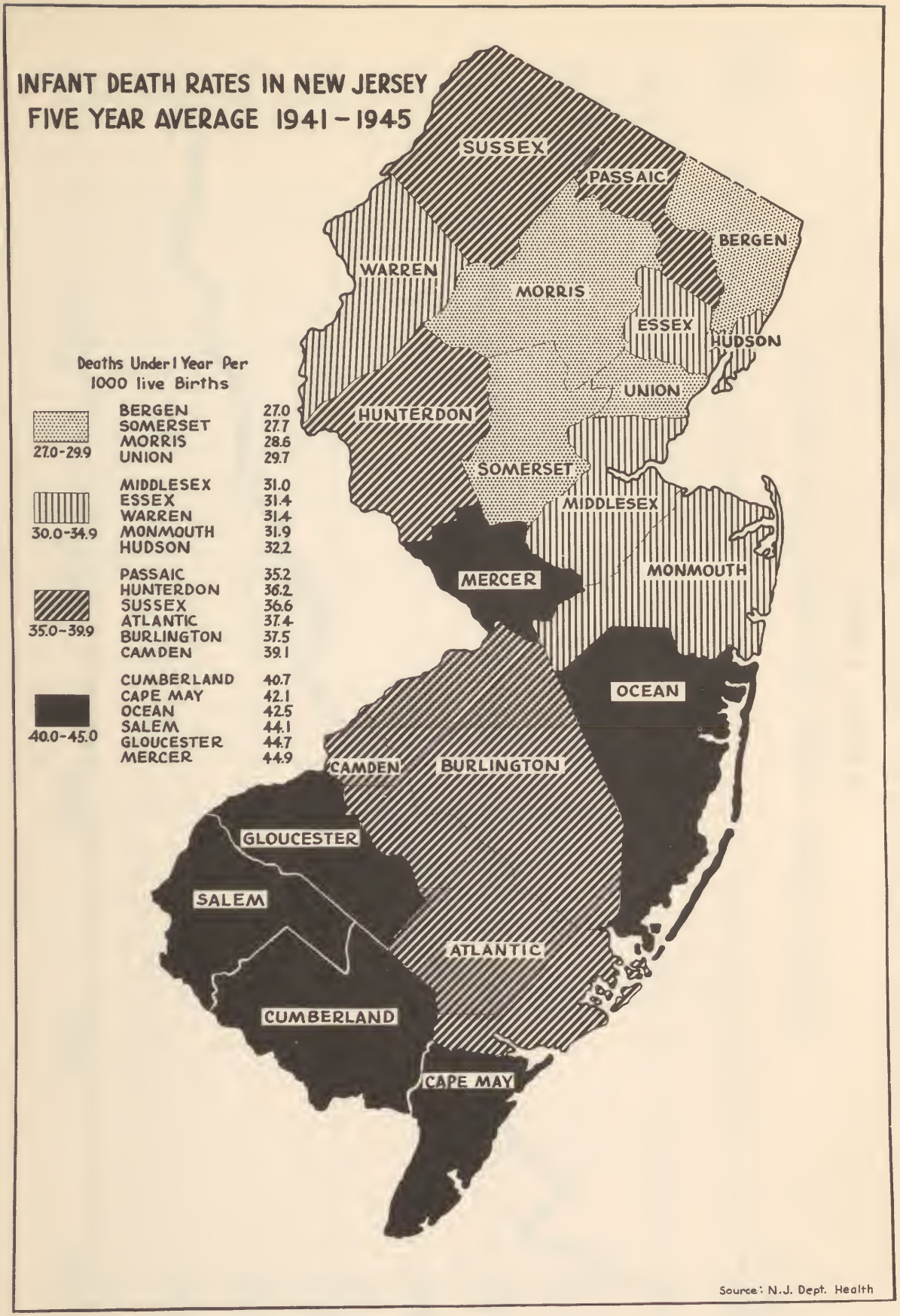
Source: N. J. Dept. Health

INFANT MORTALITY, BY COUNTIES, IN NEW JERSEY

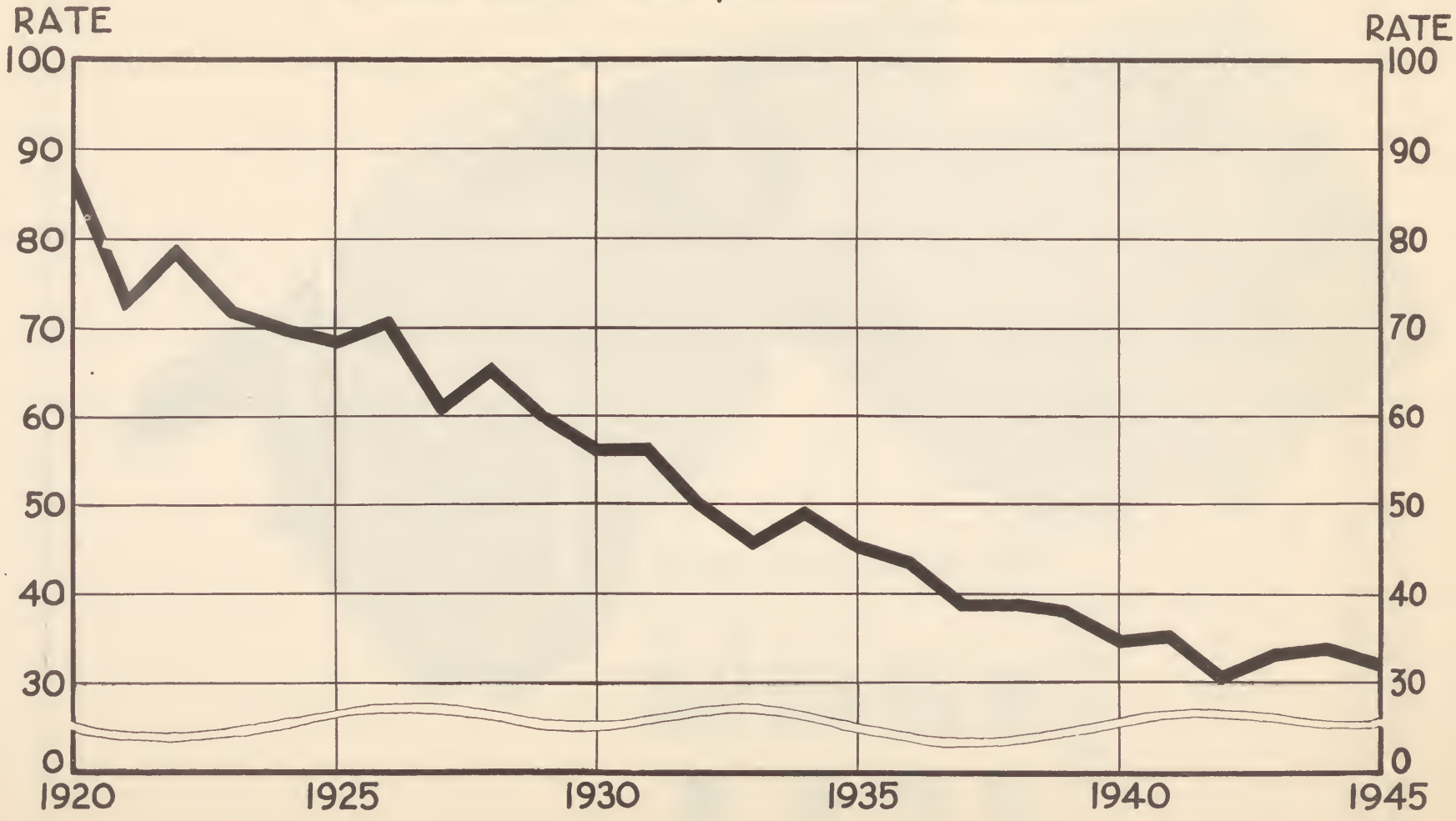
Five Year Average 1941 - 1945

County	Live Births	Deaths under 1 year	Rate per 1000 live births
All counties	76,584	2,549	33.3
Atlantic	1,847	69	37.4
Bergen	7,742	209	27.0
Burlington	1,868	70	37.5
Camden	5,037	197	39.1
Cape May	451	19	42.1
Cumberland	1,425	58	40.7
Essex	15,266	479	31.4
Gloucester	1,477	66	44.7
Hudson	11,243	362	32.2
Hunterdon	552	20	36.2
Mercer	3,562	160	44.9
Middlesex	4,131	128	31.0
Monmouth	3,162	101	31.9
Morris	2,378	68	28.6
Ocean	682	29	42.5
Passaic	5,313	187	35.2
Salem	975	43	44.1
Somerset	1,478	41	27.7
Sussex	601	22	36.6
Union	6,567	195	29.7
Warren	827	26	31.4

Source: N. J. Dept. Health


INFANT DEATH RATES IN NEW JERSEY
FIVE YEAR AVERAGE 1941 – 1945
Deaths Under 1 Year Per 1000 live Births
27.0-29.9
BERGEN 27.0
SOMERSET 27.7
MORRIS 28.6
UNION 29.7
30.0-34.9
MIDDLESEX 31.0
ESSEX 31.4
WARREN 31.4
MONMOUTH 31.9
HUDSON 32.2
35.0-39.9
PASSAIC 35.2
HUNTERDON 36.2
SUSSEX 36.6
ATLANTIC 37.4
BURLINGTON 37.5
CAMDEN 39.1
40.0-45.0
CUMBERLAND 40.7
CAPE MAY 42.1
OCEAN 42.5
SALEM 44.1
GLOUCESTER 44.7
MERCER 44.9
SUSSEX
PASSAIC
BERGEN
WARREN
MORRIS
ESSEX
HUDSON
UNION
HUNTERDON
SOMERSET
MIDDLESEX
MONMOUTH
MERCER
OCEAN
CAMDEN
BURLINGTON
GLOUCESTER
SALEM
ATLANTIC
CUMBERLAND
CAPE MAY
Source: N.J. Dept. Health

INFANT MORTALITY RATES IN NEW JERSEY
1920-1945
Deaths Under 1 Year per 1000 Live Births



Source : N.J. Dept. Health

GENERAL DEATH RATES BY COUNTIES, IN NEW JERSEY
1920, 1930 and 1940

All Causes - Per 1,000 General Population

County	THREE-YEAR AVERAGES		
	1920	1930	1940
All counties	12.5	11.0	10.8
Atlantic	14.2	13.2	13.7
Bergen	10.7	9.3	9.1
Burlington	14.0	12.4	12.0
Camden	13.5	11.1	11.2
Cape May	13.7	13.0	15.5
Cumberland	14.1	13.0	13.0
Essex	12.1	10.9	10.8
Gloucester	13.6	11.2	12.2
Hudson	12.5	11.0	10.7
Hunterdon	15.2	14.0	13.1
Mercer	12.6	11.5	10.9
Middlesex	12.1	9.8	9.6
Monmouth	14.5	13.5	13.4
Morris	13.1	11.2	10.7
Ocean	13.4	14.7	14.1
Passaic	11.4	10.0	10.2
Salem	12.7	13.1	11.8
Somerset	11.9	10.6	9.9
Sussex	15.1	13.4	12.4
Union	11.7	9.6	9.5
Warren	13.1	12.8	12.3

Source: N. J. Dept. Health

DEATH RATES FROM PRINCIPAL CAUSES IN NEW JERSEY

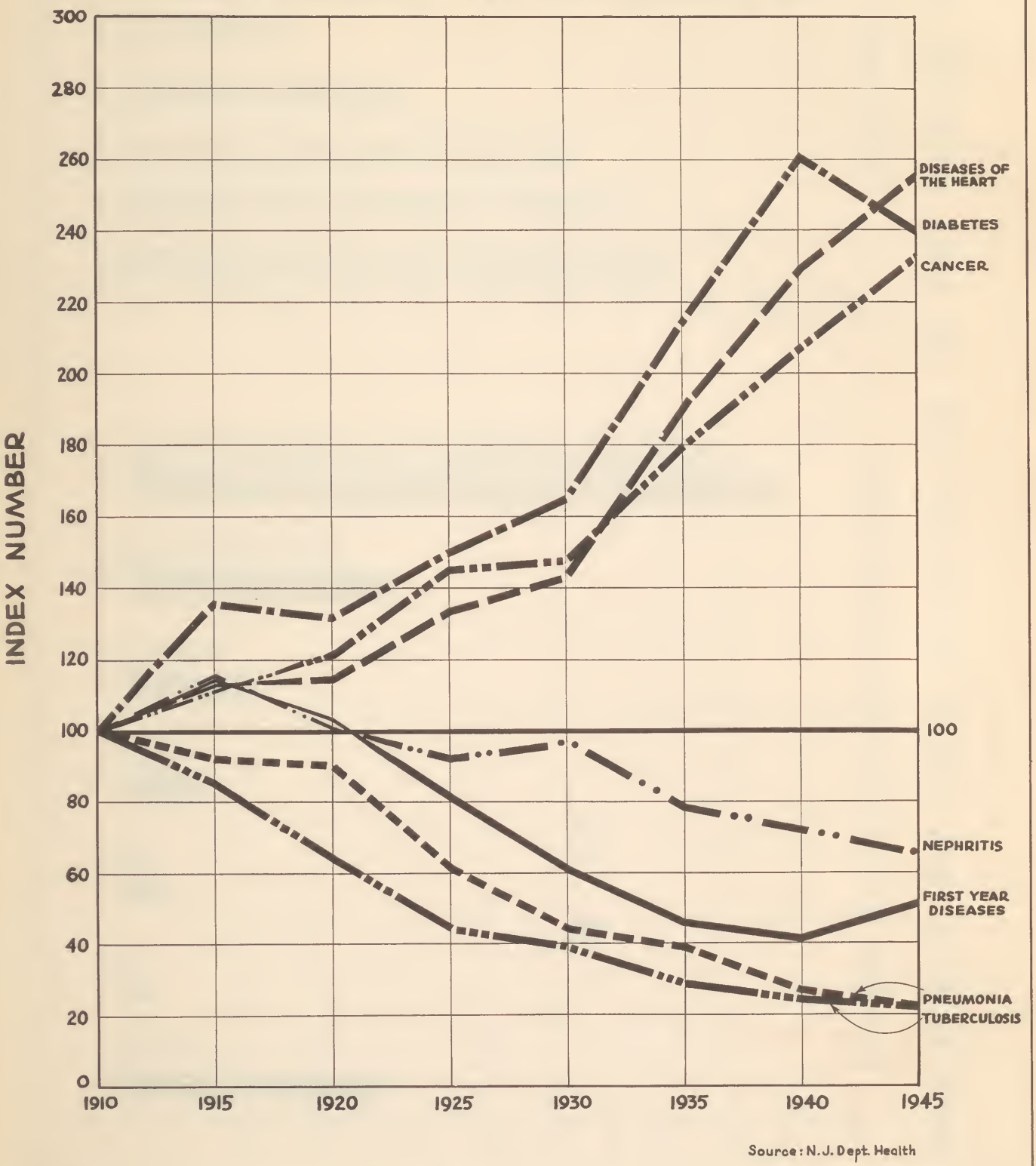
1910 - 1945

Principal causes of death	DEATH RATES PER 100,000 GENERAL POPULATION							
	1910	1915	1920	1925	1930	1935	1940	1945
Tuberculosis, all forms	178.9	153.8	114.8	80.8	69.4	52.3	43.9	41.1
Cancer and other malignant tumors	72.4	80.7	87.5	104.7	107.2	129.5	150.9	168.5
Diabetes mellitus	14.0	18.9	18.5	20.9	23.1	29.9	36.5	33.5
Diseases of the heart	156.9	175.2	177.0	208.5	232.0	298.1	359.2	400.5
Pneumonia and bronchopneumonia	175.5	161.3	158.8	108.8	77.9	66.1	44.8	39.7
Nephritis	105.6	121.7	106.8	97.6	102.4	82.6	77.2	69.9
Congenital malformations and debility, premature birth and first year diseases	86.0	98.1	88.5	69.6	52.1	39.2	35.8	43.8

Source: N. J. Dept. Health

DEATHS FROM PRINCIPAL CAUSES IN NEW JERSEY 1910 – 1945

INDEX NUMBERS : 1910 DEATH RATES = 100



Source : N. J. Dept. Health

DEATH RATES IN NEW JERSEY IN 1940 BY AGE AND THEIR DECREASE SINCE 1910

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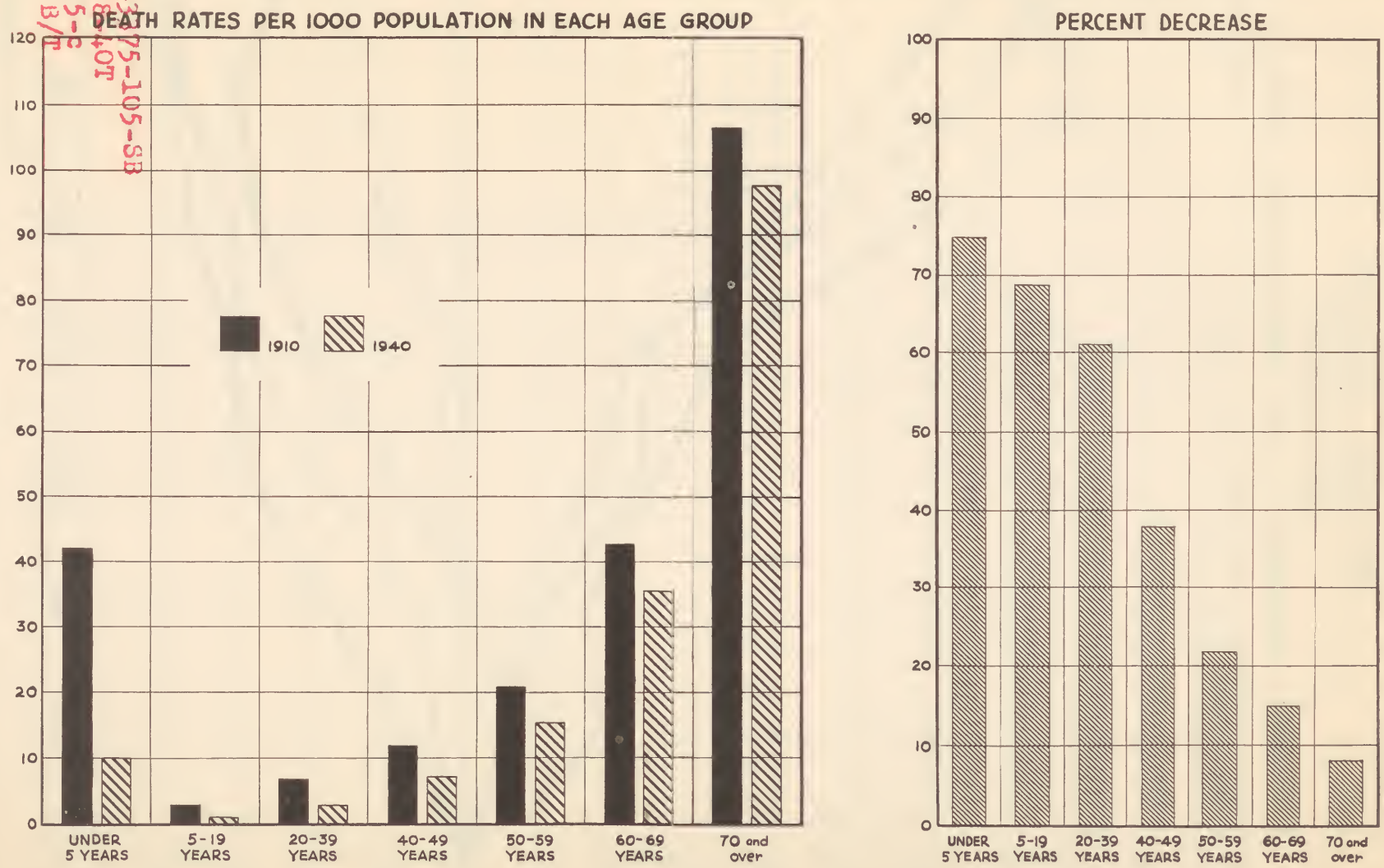

Source: N. J. Dept. Health

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